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DIAGNOSIS OF RENAL CALCULUS.

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Read at the meeting of the San Francisco County Medical Society, April 9, 1901.

The diagnosis of renal calculus depends upon the proper interpretation of a few facts and a few symptoms. Principal among these are pain, urinalysis, physical examination, catheterization of renal pelvis, X-ray, etc. As to the pain, it is not necessarily characteristic, but is generally an index to the proper course. It is usually lumbar, dull and aching, with at times acute attacks of great severity, which respect neither time nor place. Sleep may be rudely disturbed, as may the busy hours of day. Months or years have gone by replete with this history of pain,—pain that has permitted the patient to labor, but not to forget,—pain not content with infesting the loin, but seeking at times the course of the ureter, the testicle, the gastro-intestinal tract, and even the thigh. These pains are the result of the irritation of the renal pelvis or ureter by the contained calculi, which culminates in a peristaltic contraction of pelvis and ureter, in the effort of nature to do her own surgery, which effort is sometimes successful, though painful. The passage of a calculus through a ureter frequently produces pain so characteristic in severity and location, shooting down the course of the ureter, as to leave little doubt as to the diagnosis. The location of pain will guide one to the proper kidney, and manipulation or bi-manual manipulation of this kidney will probably elicit more and severer pain. On the other hand, stone may exist for years in kidney or bladder and patient be little or not at all inconvenienced thereby.

Urine.—The condition of the urine is one of the most confirmatory circumstances in determining the diagnosis. The presence of blood, pus, and urinary salts points to the true condition. Stone in the pelvis or calices of the kidney will produce blood, by causing an ulceration of the tissue, with which its rough walls come in contact. The blood may be in large or small quantity, continuous or intermittent. It may require the microscope to determine its presence, or it may cause a uniform darkening of the entire bulk of the urine. Bodily exercise is supposed to increase the production, which it undoubtedly does; but it also increases the flow of blood from kidney when caused by tumor or other condition, hence this circumstance can scarcely be looked upon as diagnostic. The long-continued, uninterrupted bleeding from a kidney, without pain or characteristic sediment in the urine, is more likely to indicate tumor or other condition than stone.

Pus is as constantly found in the urine as blood, and it is equally important to determine its source. The irritation, and possibly ulceration, produced by the calculus will furnish a supply of pus corpuscles in the urine, though, like the supply of blood, it may be more or less intermittent. In the female it is an easy matter to determine whether the blood and pus come from the bladder or kidney, and if from the kidney, which one. By means of the cystoscope the ureters are catheterized, or the urine is drawn directly from the pelvis of the kidney by means of the renal catheter. In the male, after thorough irrigation of the bladder, the urine may be collected from each kidney separately by means of the Harris separator. This gives quick, reliable results, and should be resorted to in doubtful cases. Catheterizing the male ureters is possible in the hands of those who practise it, and, when it can be done, may be left to the judgment and skill of the person responsible for the case and for its necessity. This matter of catheterization of the ureters is of equal importance for the purpose of determining the condition of the unaffected side. The pain alone will generally indicate which kidney contains the stone. The examination of the fresh urine is important, as indicating the kind of stone. A strongly acid urine, associated with an early deposit of uric acid crystals, almost certainly indicates that the stone retained is of uric acid. If, under like circumstances, the crystalline deposit is of calcium oxalate, the stone is probably of the same character. An alkaline urine will indicate changes in the urine after it has reached the bladder, and will suggest that probably a stone of uric acid or oxalate of lime has been subjected to a second deposit of phosphates. Stones, or fragments of stones, previously passed furnish a very reliable guide to the nature of the remaining stone. Albumen is very likely to be present in the urine, especially if blood and pus are found; also varying quantities of epithelium from the renal pelvis. Associated with the presence of pain, with blood and pus in the urine, the patient, during an acute attack, may suffer from nausea and vomiting, with profuse perspiration, with frequent desire to urinate, or possibly with diminished or suppressed secretion of urine, with chills, high temperature, or even collapse.

Physical examination is seldom positive in results. The kidney is sometimes tender, and very exceptionally a calculus can be felt in the ureter in very thin subjects. A diagnosis must be made between movable kidney, tuberculosis, malignant growth, nephralgia, oxaluria, uric acid diathesis, phlebitis, renal abscess, peri renal abscess, spinal caries. The differential diagnosis must exclude stone in the bladder. The location of pain in the loin, tenderness over the kidney, a highly acid urine, are usually sufficiently definite. The pain in the back, along the ureter, the retraction of the testicle, hematuria, together with the character of the urine, are generally sufficient to distinguish it from gall stones or intestinal colic. Malignant growths can frequently be felt. If any hemorrhage, it is apt to be greater. Tuberculosis of the kidney produces more pus than blood, and in the thickened pus may sometimes be found tubercle bacilli. Movable kidney, besides producing colicy pains, can be felt in its abnormal position. Nor does it cause blood in the urine. In doubtful cases of possible renal disease, an exploratory operation is justified, and should be done. The latest, and perhaps one of the most reliable, means of confirming a diagnosis is the X-ray. Considerable work has been done in this direction, both with renal calculi and gall stones. The method is possible in thin subjects and with the machine in good working order. As the shadow picture depends for its perfection upon the density of the object through which the ray must pass, it follows that the gall stone will give a less dense shadow than the harder and more compact renal stone, especially those of uric acid and oxalate, and the contrast between stone and flesh and bone will be less marked than in the case of kidney stone. The possibility of good results is in favor of the latter, for the reason that the ray passes perpendicularly through the kidney to the plate under the body, and has less of fat and soft tissue to traverse than in the case of gall stones, when the thickest part of the body is interposed. Several operators have met with success in this procedure, and in such event the diagnosis is not only verified, but subsequent treatment indicated, as this would be very materially modified if the X-ray plate shows a kidney studded throughout with sand and gravel, rather than containing one or two large stones in the pelvis. Personally I have not yet been fortunate enough to find a renal calculus by means of the ray. I have, however, demonstrated the possibility of locating a calculus in the bladder, a large oxalate in a man of rather good physique. The plate shows it very plainly, leaving no doubt as to its presence or its character. In the case of an unsuspected calculus such a disclosure would be of very material aid in either bladder, kidney, or gall-bladder. I have made a few experimental plates by placing renal calculi under the loin, then passing the X-ray through the body and stone to the plate placed underneath. In every instance, even in very thick people, I have been able to get the shadow of the stone on the plate. The conditions here are as nearly as I could approximate to the actual clinical condition, the difference only being that the stone in the experiment is nearer to the photographic plate than is the stone in the kidney, but in each the ray must penetrate the same thickness of tissue. The abdomen is the most difficult portion of the body to X-ray, yet I believe that sooner or later this will be one of the established means of confirming the diagnosis.

THE MEDICINAL TREATMENT OF RENAL CALCULUS.

By Dr. Wm. Watt Kerr, Professor of Clinical Medicine, University of California.

Read at the meeting of the San Francisco Medical Society, April 9, 1901.

This evening's topic includes the entire subject of renal calculus, and consequently a full discussion of the material belonging to each section is impossible within the allotted time. Probably the matter will be most easily considered by describing the medical treatment during the attack of renal colic, then the measures to be adopted during the quiescent stage, and, lastly, by referring briefly to the preventive treatment.

Renal colic is due not only to the distension, and it may be laceration, of the ureteral lining mucous membrane by renal concretions, but also to the spasm of the ureter, induced by these solid bodies and by the chemical conditions of the urine. Clinically the ureter is too often regarded simply as a tube connecting the kidney with the bladder, and its anatomical construction is forgotten. If it were remembered that the ureter closely resembles the small intestine, in having its mucous, muscular, and fibrous coats; that it is well supplied with nerves from the inferior mesenteric, hypogastric, and cremasteric plexuses; and that normally the ureter exhibits a peristaltic contraction from kidney to bladder, which is increased in direct proportion to the amount of urine secreted from the kidney into its pelvis, our interpretation of the symptoms would be more accurate and our treatment more successful.

Reference has been made to the intestine, because just as simple colic is produced by irritating ingesta or by chemical conditions, such as the presence of lead in the blood, so there is reason to believe that renal colic is not only the pain produced by a passing calculus, but that it is also due to spasm of the ureter, induced both by the irritation of the calculus and by the chemical condition of the urine. These conclusions are based not only on the observation of patients, but also upon a study of my own sensations at intervals during a number of years. Many sufferers from renal colic recognize a difference in the character of the attacks, some of them being associated with the sensation of a foreign body passing down the ureter and dropping into the bladder, while others have the intense radiating pain, accompanied by nausea and frequent urination, but do not yield the feeling of any substance in the ureter. Those attacks are frequently attributed to the disturbance of calculi lodged in the renal pelvis, but they also occur where examination and history fail to give any indication of such conditions. A few months ago this happened upon four successive nights, and disappeared in less than half an hour after drinking a large quantity of alkaline water; and on three or four subsequent nights, when premonitory symptoms appeared, the attack was averted by the same remedies. The rapidity of the result could not be ascribed to any solvent effect, and I could only attribute it to the dilution and diminished acidity of a highly acid urine, which was inducing spasm of the ureter.

Since the pain of renal colic is due to the local irritation produced by the calculus, and also to spasm of the ureter, the indications for treatment must be to relax spasm and furnish sufficient urine to dislodge the calculus, and if possible carry it down into the bladder. The treatment during this stage is the same in all cases, no matter of what the stone may be composed. Heat applied to the back by means of India-rubber bags, and the free imbibition of hot drinks, are the first remedies that should be tried. It is not of importance what drinks are used so long as they are taken in sufficiently large quantities to produce rapid secretion and dilute the urine, in consequence of which it will be rendered bland and less irritating to the ureteral mucous membrane. A pint of hot tea every five minutes until two or three quarts have been taken is less nauseating to most people than the same amount of hot water, and therein has a diuretic influence. Should these measures fail to yield relief, recourse must be had to narcotics, the best of which is morphia injected into the back over the offending organ. Inunctions and suppositories are too slow to be of much service, except in cases where the pain is of a prolonged steady aching character, such as is associated with the disturbance of a stone in the pelvis of the kidney. The dose of morphia should be large, never less than half a grain, and more frequently one grain being necessary to make the pain bearable. I never have had recourse to inhalation of chloroform. The treatment between the attacks must be determined by the variety of calculus present. Uric acid constitutes at least 85 per cent of all renal calculi; next to this comes oxalate of lime, urate concretions, and more rarely we have cystin, xanthin, basic phosphate of lime, and carbonate of lime. Combinations of uric acid and oxalate of lime are by no means uncommon.

Since there is such a variety of calculi, it is evident that some endeavor must be made to ascertain the nature of the concretion in each case before attempting its solution, and this can be done only by an examination of the urine made at the time of emission, instead of some hours later, when secondary changes may have taken place. If the urine be acid when passed, then in all probability the calculus is either uric acid, oxalate of lime, or a combination of these two; and this opinion will be confirmed by microscopic examination of the precipitate. If the urine be alkaline, from the presence of fixed alkali, the calculus consists of bone earth phosphate or carbonate of lime; but should it be due to volatile alkali, then the presence of mixed phosphates is indicated, and, as these are liable to encrust other concretions, the nature of the calculus can no longer be determined. What is known as the alkaline treatment is the only system of internal medication that has yielded satisfactory results, but its scope is very limited, and it is only applicable to those cases where the calculi are very small, and where they are associated with an acid condition of the urine. It is contraindicated whenever the urine is found to be alkaline at the time of emission. Furthermore, only uric acid and cystin among the calculi found in acid urine are dissolved by alkalies, and therefore no results beyond those of flushing are obtained where the stone is formed of oxalate of lime or is incrusted by a coating of that salt. It has been objected to the prolonged use of alkalies that a phosphatic deposit on the surface of a calculus may be facilitated; but experience has shown that this takes place only when the alkalinity is due to ammoniacal decomposition. To be of any value, the solvent treatment must be undertaken only under the conditions already mentioned, it must be continued for three or four months, and during that time the urine must be maintained persistently alkaline. Piperazin, urotropin, and several recent remedies have been suggested as solvents, but experience leads me to prefer the citrate of potash, the citrate of lithia, or a combination of these salts. It only remains for us to refer to those measures which should be adopted to prevent the return of the attacks. This preventive treatment depends upon a knowledge of the forms in which the substances constituting calculi exist in the blood, and also requires an appreciation of the conditions which lead to their precipitation. Much work has been done relative to the sources of uric acid in the urine, and has resulted in the formulation of two theories. One opinion is that there exists a quadriurate, which sets free uric acid whenever these quadriurates are present in excess, or whenever there is a deficiency of saline ingredients to keep them in solution. Another theory is that the uric acid exists as an acid urate, bi-urate of soda, which is kept in solution by the presence of acid phosphate of soda in the urine and other body fluids; but when the menstruum cools, or when there is a disturbance in the proportions of different salts present, uric acid is precipitated. The tendency is towards the adoption of the last-mentioned theory. So far the researches connected with the theories have been beneficial in correcting pernicious therapeusis, rather than in indicating new remedies. The impression has long existed that all alkaline remedies are beneficial in the treatment of gout and gravel, but investigation has shown that sodium salts hasten precipitation of bi-urate of soda; potassium, magnesium, and calcium salts delay, but do not prevent precipitation, while lithia and piperazin have no effect either way. The great benefit obtained from the use of the various mineral waters lies in the fact that by this means the patient is induced to drink large quantities of water between meals, in consequence of which the blood is diluted, the percentage of urates diminished, precipitation delayed, and the offending material removed by the increase in the frequency and copiousness of urination. In all cases of renal calculi, therefore, the patient should be encouraged to drink freely of water between meals; and he should be particularly urged to do so when retiring for the night, as it is during the hours of sleep that the urine is most liable to become concentrated and precipitation to take place. If the calculus be of uric acid, then the patient's diet and mode of life should be regulated as in people of gouty tendencies; if it be oxalate of lime, then such articles of food as are rich in oxalates should be avoided; while the existence of phosphatic calculi would indicate the avoidance of alkaline drinks and foods rich in calcareous salts. The value of regular exercise in maintaining the general tone of the different organs should not be overlooked.

REMARKS ON THE SURGICAL TREATMENT OF RENAL CALCULUS.

By Dr. Emmet Rixford, Professor of Surgery, Cooper Medical College.

Read before the San Francisco County Medical Society April 9, 1901.

Gentlemen: Having been requested some weeks ago to prepare a paper on the "Surgical Treatment of Renal Calculus" for the meeting to-night, I would respectfully call your attention to the fact that this is a very large subject, and not to be adequately discussed in any single paper of reasonable length. Renal surgery of to-day does not content itself with making a general sort of diagnosis of renal calculus, and then giving morphin enough to control the pain, and expecting the stone to pass, and operating only when a bulging abscess occurs in the loin. It aims at least at making an anatomical diagnosis, and, in appropriate cases, attacking the trouble radically before irreparable damage is done an organ of so great importance to the animal economy as the kidney. In such a discussion it goes almost without saying that treatment of renal calculus includes that of ureteral calculus as well, for the two conditions are inseparably connected.

Our modern text-books have difficulty in keeping up to date in this branch of surgery, so rapid in recent years has been its development. Among the best dissertations on the subject in American text-books is that of J. William White, in "White and Martin on Genito-Urinary Diseases." Perhaps the best, and certainly the most painstaking, conscientious, and, at the same time, I would like to say, suggestive article, is that of Mr. W. H. A. Jacobson, of London, in his book "The Operations of Surgery." In the edition of 1897, Jacobson says: "Nephrolithotomy is one of those advances in modern surgery which has outstripped diagnosis. . . . The operation has been rapidly perfected, while the diagnosis of stone in the kidney often remains uncertain to the last." To make this the more evident, he says further, "While I have on twenty-one occasions removed calculi by nephro-lithotomy, I have six times explored kidneys for stone, both by multiple puncture and incision, without result." In some of these cases, whose histories he gives in brief, there definitely was no stone, and in others the stones were hidden in the calices of the kidneys, and were not detected. It may be further stated that even when kidneys have been removed at autopsy, calculi concealed within have eluded detection by palpation. The difficulties of diagnosis of stone in the kidney are, therefore, very great, for every operator who has had a large experience in renal surgery has made the same observation here as Jacobson. Surgery of the kidney has been handicapped and held back by faulty and inaccurate diagnosis. Accurate and certain diagnosis of renal calculus, while important enough in regard to medical treatment, is still more vital to surgical, for while the former is expectant or palliative, as far as the stone itself is concerned, the latter is radical in the very nature of the case.

In practise the great majority of cases of renal and ureteral calculus are seen first by the medical practitioner, and are put under his treatment for a greater or less period of time, in the hope that by means of diuretics, sedatives, or antispasmodics, the stone may be facilitated in its attempt to reach the bladder. That this is amply justified and right is shown by the well-known elimination of the stone in this way in a large percentage of the cases. Since practically all cases, then, are likely to be subjected to medical treatment, as they are also quite as properly given medical treatment at the hands of the surgeon, the first and most vital question to be determined before discussing surgical treatment is, When does a given case properly become surgical? On the one hand it is easy to continue medical treatment to a length which may result in irreparable damage to the kidney, or even more serious consequences; and, on the other hand, it is manifestly wrong to subject the patient to a necessarily serious, and to a certain extent mutilating operation, when the case may be cured by milder and innocuous methods. In a certain, though small, percentage of cases the matter is easily settled. I refer to those cases in which, from the loss of function in the opposite kidney from one cause or another, there supervene the symptoms of uremia on the occurrence of occlusion of the ureter. The insufficiency of the opposite kidney may be due to a variety of causes, varying all the way from disease and destruction of its secreting structures to mere functional suppression from nervous or, possibly, chemical cause. Two cases of sudden occlusion of one ureter observed by the writer serve excellently to illustrate the danger of this condition, even when the opposite kidney is relatively sound. The one furnishes the gratifying result of cure by operation, and the other, being inoperable from the first, succumbed to the uremia. The first was a case of floating kidney, with sharp flexure of the ureter, in the service of the writer in the County Hospital, reported in the "Occidental Medical Times," December, 1900, resulting in uremia, which, within 48 hours of the time of entering the hospital, developed into uremic coma, which was relieved none too soon by restoration of the kidney to its normal position by nephrorrhaphy. The patient remains well to-day, after a year. The other case occurred in the practise of Doctor Graves, of this city. It was that of a very large man, weighing 315 pounds, who, after enduring severe pain in the loin for seven or eight hours, called Doctor Graves, who diagnosticated ureteral calculus, and gave relief with an injection of morphin and atropin. The patient passed a considerable amount of urine of high specific gravity, but in the following night began to grow extraordinarily restless, and ended by passing into a condition of extreme agitation and incoordination. The writer saw the case in consultation, and agreed that the symptoms were most probably uremic. The patient was accordingly bled, which gave great relief. When the advisability of operation was being discussed, he became suddenly worse, and died in an hour, which was within 40 hours of the initial pain, and within 12 hours of the outset of uremic symptoms. Autopsy showed a calculus lodged in the left ureter about its middle and the opposite kidney macroscopically and microscopically healthy. Urine passed by the patient within two hours of his death was normal, save for high specific gravity and a trace of albumen. The sound kidney had been suddenly overtaxed, and was unequal to the demand made upon it. The patient's urine had been examined within a year of this illness, and found to be normal, excluding contracted kidney.

In these cases where uremia comes on, unless it is speedily relieved the patient will surely die. Israel, of Berlin, says that it is dangerous to delay operation more than 24 hours after the symptoms of uremia come on. The choice of operation is to be made according to the pathological condition present. Further, the decision as to operation in renal calculus is not hard to make in those cases in which the stone has led to ulceration and infection of the pelvis of the kidney or of the kidney substance itself, or to perinephritic abscess. Manifestly in these cases as soon as the condition is definitely recognized it should be subjected to appropriate operation. In the great number of cases, however, which are not included in these categories, and therefore in by far the majority of cases, the solution of this question is anything but obvious. Henry Morris, who was the first to deliberately cut down on the kidney to remove calculus, said in 1881 (Clin. Soc. Trans., vol. 14, 1881), "Nephrolithotomy should unhesitatingly be done in all cases in which symptoms of renal calculus continue uninfluenced by medical treatment and are sufficiently severe to interfere materially with the comfort and usefulness of the patient's life." He goes somewhat farther, in view of the uncertainty of diagnosis, advising exploratory operation in cases in which symptoms suggestive of stone in the kidney persist for several months. This may be taken as a conservative statement of the case, but it is open to very liberal interpretation as to how long to wait. Nowadays there is manifest a tendency to operate earlier, as methods of diagnosis and operative technic improve.

The most striking as well as the most valuable improvement in diagnosis of recent years is the use of the X-ray, which, in competent hands, may be relied upon to locate a renal calculus accurately in the pelvis of the kidney or in the ureter, and will give a very good idea of its size and even of its shape. Of paramount importance is its power to demonstrate whether the calculus is single or multiple, and whether the opposite kidney contains a stone or not. Mackenzie Davidson, of London, who has devised a most accurate method of locating foreign bodies in and about the eye, has also, by an ingenious device, been able to make excellent negatives of renal calculi. A principal element of his success is that he contrives to expose the plate when the kidney is at rest in one place, i. e., eliminating the blurring incident to the motion of the kidney under the respiration. By taking two exposures, he is enabled to locate the stone absolutely with reference to the adjacent bony structures. While the matter of diagnosis is the subject of another paper this evening, I can not refrain from alluding to three articles on the subject, which have recently appeared in the "Annals of Surgery," by Leonard, of Philadelphia, in February, 1900, and April, 1901, and Bevan, of Chicago, in March, 1901. Bevan enthusiastically says that a perfect skiagraph, with the proper amount of detail and differentiation, is of greater value as a means of diagnosis than an exploratory operation. Such a skiagraph will show whether there is a stone or not. It will show whether there is one or more stones. It will show on which side the stone is. It will show the position of the stone or stones. The whole subject of diagnosis of renal stones has been revolutionized in the last two years by the X-ray. And again he says, "The successful application of the X-ray to the diagnosis of renal stone furnishes a chapter in the development of renal surgery no less important than the chapters furnished by Gustav Simon and Henry Morris, when they gave nephrectomy and nephrolithotomy to the world." By the X-ray, then, we can separate out a considerably larger number of cases of renal calculus and show them to be amenable only to surgical treatment, for example, a large, irregular stone, which manifestly can not escape through the ureter. No one will dispute that such a stone should be removed by operation forthwith, and, this being done without delay, the kidney may escape such destructive processes as pyelitis, pyelonephritis, and the patient saved from much suffering and a refractory suppurating sinus, and eventual loss of the kidney. In those cases which the X-ray will prove can not be relieved by medical means, the earlier the operation is done the better. A stone lodged in the ureter, and which on re-examination remains in the same position, after a reasonable length of time, would very properly be considered to have become impacted and to require removal by operation. Besides the points mentioned, the X-ray plate, when read with understanding, locates the stone accurately, which greatly facilitates the operation and lessens the danger to the patient and favors rapid convalescence. But, more than that, it will lead the surgeon to persist in his search for an elusive stone, when without such certainty the search would in all probability be abandoned, as has occurred over and over again in such cases.

To recapitulate, I would present for discussion the following, as among the indications for operation: 1. Cases with history of sudden pain in the region of the kidney, or with hematuria, with or without irritability of the bladder, and which develop symptoms of uremia, should be operated upon at once and the obstruction removed. 2. Cases of renal calculus, which the X-ray has shown to be manifestly incurable by medical means, should be subjected to operation without delay, by procedure dictated by the peculiarities of the case, e. g., in cases of large or irregular stones. 3. Cases in which a small stone located by the X-ray, which presumably will pass, and which, after waiting a reasonable time, on re-examination remains in the same position unmoved, should be operated upon. 4. Cases in which symptoms of stone persist for a considerable length of time, and show no improvement from medical treatment, are properly surgical cases. They may be in danger of contracting the morphin habit, or even if the symptoms are not unbearable the kidney is apt to be in time irreparably damaged. 5. Cases in which renal calculus has led to pyo-nephrosis, pyo-nephritis, should be operated on at once, and even cases of pyelitis, if diagnosticated, showing no prospect of subsiding under medical treatment, should be operated upon without waiting beyond a reasonable time.

The technic of the operation of nephro-lithotomy has received somewhat of an improvement of late on the matter of the choice of the site for the incision into the organ itself. It is not long since surgeons sought to explore the pelvis of the kidney only through an incision in the pelvis, but it was found that a certain proportion of cases were followed by urinary fistula or a suppurating sinus. The danger of wounding the renal artery or some large renal vein is very great, because the pelvis is on the inner side of the kidney; and when such wounding of vessels occurs, the inaccessibility interferes with the intelligent control of the bleeding. Wounds of the kidney substance are known to heal readily if not infected, and the convex surface of the kidney, especially in its lower part, is the most readily accessible portion of the organ. Hemorrhage from the cut vessels of the kidney substance is often spoken of as abundant, but readily controlled by pressure, either with the exploring finger or with packing. With such incision through the kidney substance into the pelvis in view, studies have been made of the circulation within the kidney itself. Of such studies, the one which has come to the writer's attention is that of Max Brodel, in the "Johns Hopkins Hospital Bulletin," for January last. By means of injection of insoluble substances into the vessels and the pelvis, and subsequent digestion of the kidney tissue, Brodel has beautifully shown the relations of the arteries and veins to the calices and to the section of the kidney. The practical inference to be drawn from these studies is that, on the average, three-fourths to four-fifths of the arterial supply to the kidney passes in front of the pelvis and one-fourth to one-fifth only behind. All the veins pass to the front, surrounding the calices like collars. The arteries of the kidney are in the strictest sense terminal arteries, and hence, when cut, destroy the function of that part of the kidney supplied by them. There is, further, no communication between the anterior branches and the posterior. In the cross section of the kidney the posterior surface is flat, and on the dorsum the division between the anatomically anterior portion and the posterior is marked on the surface by a slight furrow in most cases, a remnant of a vertical division between fetal lobes. This corresponds to a mass of cortical substance which passes down almost to the pelvis between the anterior and the posterior row of calices, in which cortical mass the largest vessels of the interior of the kidney pass. The incision into the kidney substance for the purpose of exploring the pelvis should be made, according to Brodel, a quarter or an eighth of an inch posterior to this line, which brings the incision in the great majority of kidneys not far from the summit of the dorsum of the kidney. Such an incision in the lower part of the kidney may be three or four inches long and not cut a single arterial branch of any importance in the majority of kidneys. It opens the posterior set of calices, from which the whole pelvis may be explored by the finger or with Child's silver catheter.

In the limits of the present paper it is impossible to give more than a mere outline of the operative procedures embraced in the surgical treatment of renal calculus. In general. the kidney can best be reached through the oblique incision outside the erector spinae, beginning at the twelfth rib, care being used not to open either pleura or peritoneum. This last is important, because in so large a percentage of cases there is present infection of the kidney or its pelvis. If the stone lies in the pelvis of the kidney, or in one of the calices, especially if it is a large stone, an incision of considerable length may be required. If there is suppuration, the exploring finger should break into every abscess of detectable size, and the whole washed out and drained. White advises, instead of removing the kidney, in the cases where there is considerable suppuration, opening and draining, and waiting to see whether the opposite kidney is sufficiently healthy to perform alone the renal function. This because infection in such cases is apt to be bilateral. If the stone lies in the ureter, it may be reached in the upper half of that organ or as low down as the brim of the pelvis by prolonging the incision described obliquely forward and downward four or five inches, this without opening the peritoneum. In the lowest part of the ureter in females the stone may be removed by an incision in the vault of the vagina. In males, through a supra-pubic section of the bladder, or, in urgent cases, by an incision in the nature of a Kraske operation on the rectum or trans-peritoneally. The ureters have been proven in recent times to be amenable to surgical work to a far greater extent than was formerly supposed. When possible, the normal wound in the ureter should be closed with fine sutures, preferably silk. If there is no suppuration, the kidney wound may be sutured; but, since it is impossible to tell always whether there is not some infection, it is safest to drain the external wound in all such cases. There is apt to be a certain amount of urinary leakage, though this is far less in wounds of the kidney substance than in those of the pelvis. Urinary fistula sometimes is left, and may be intractable and eternally-suppurating sinuses occur. In these cases milder methods may be tried, but generally in the end the kidney has to be removed; but, of course, only when the opposite kidney has demonstrated its ability to perform the renal function.

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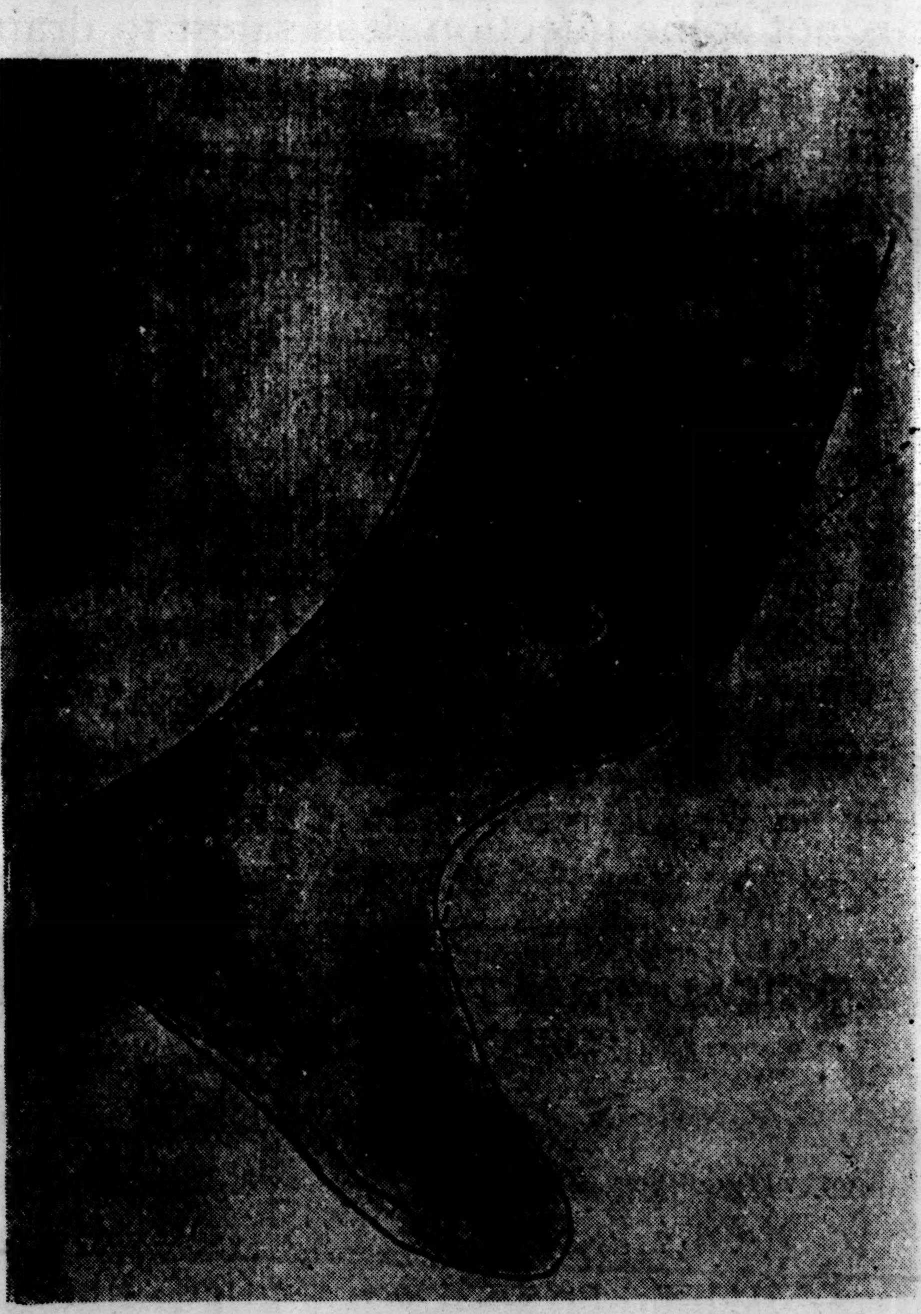
SURGICAL TREATMENT OF RACHITIC DEFORMITIES.

By S. J. Hunkin, M. D.

Read before San Francisco County Medical Society, September, 1900.

Extreme pelvic deformities due to rachitis, while fairly frequent in Europe, must be quite rare in cases developing in this country, for while I often see bad deformities in the lower extremities in children here, particularly so in the children of people from Southern Europe, and among the negroes, yet I do not call to mind a single case of any marked change in the configuration or development of the pelvis. For the deformities of the skull, the ribs, the pelvis, surgery offers but little remedy, and these are the forms rarely seen with us. Under proper care also nature proves often fully competent to attend to epiphyseal nodes, most of the deformities of the upper extremities, and to a large extent also, to the long outward curves of the femoræ, hence the expectant plan of treatment combined with the purely medical, is generally successful, and should certainly be continued longer, and in cases of an older age, than in deformities of other bones. For practical purposes and in the vast majority of cases the surgery of rachitic deformities has relation to changes in the tibiæ, in the femoræ about the condyles, and rarely in the shaft of the femoræ, and at the upper extremity. We consider chiefly the knees and below the knees. In the correction of these deformities the fibulæ can usually be disregarded. Of the changes, the full curves of the shaft of the bones are the simplest, and the short anterior curve of the tibiæ, especially with a twist above or below, are the most complex, and the means of correcting some of these, and still more the method of maintaining and securing the best position during the process of repair, will often tax all the fertility and resource that the surgeon is capable of. We find the best method of getting a record of the deformity, and also of the result secured, and much better than any written description, is obtained as follows: Patient on a table, lying on a smooth sheet of firm paper, with the upper edge coming well above the perineum and the lower edge below the heels; the feet are held perpendicularly to the surface; in genu valgum the knees are gently pressed together, while in bow legs, the ankles are held in contact. A pencil now held exactly vertical, and following the skin lines gives a tracing on the paper. In the majority of cases, this alone gives a good record, but when there is a marked twist in the tibiæ, it does not give a correct idea of the character of the deformity, and we then take one tracing in the position described and a second without moving the child, but with the feet either rotated inwards or outwards, or both, as best shows the deformity. Of course in anterior bowing, the child is held on its side. Several tracings here shown, give the record tracings made in this simple manner, and superimposed on the same sheets in dotted lines, are seen similar tracings of the same patients after treatment, and on top of each sheet in a single word is noted the character of the operative procedure. Surgically there are three plans of treatment: expectant, mechanical, and operative.

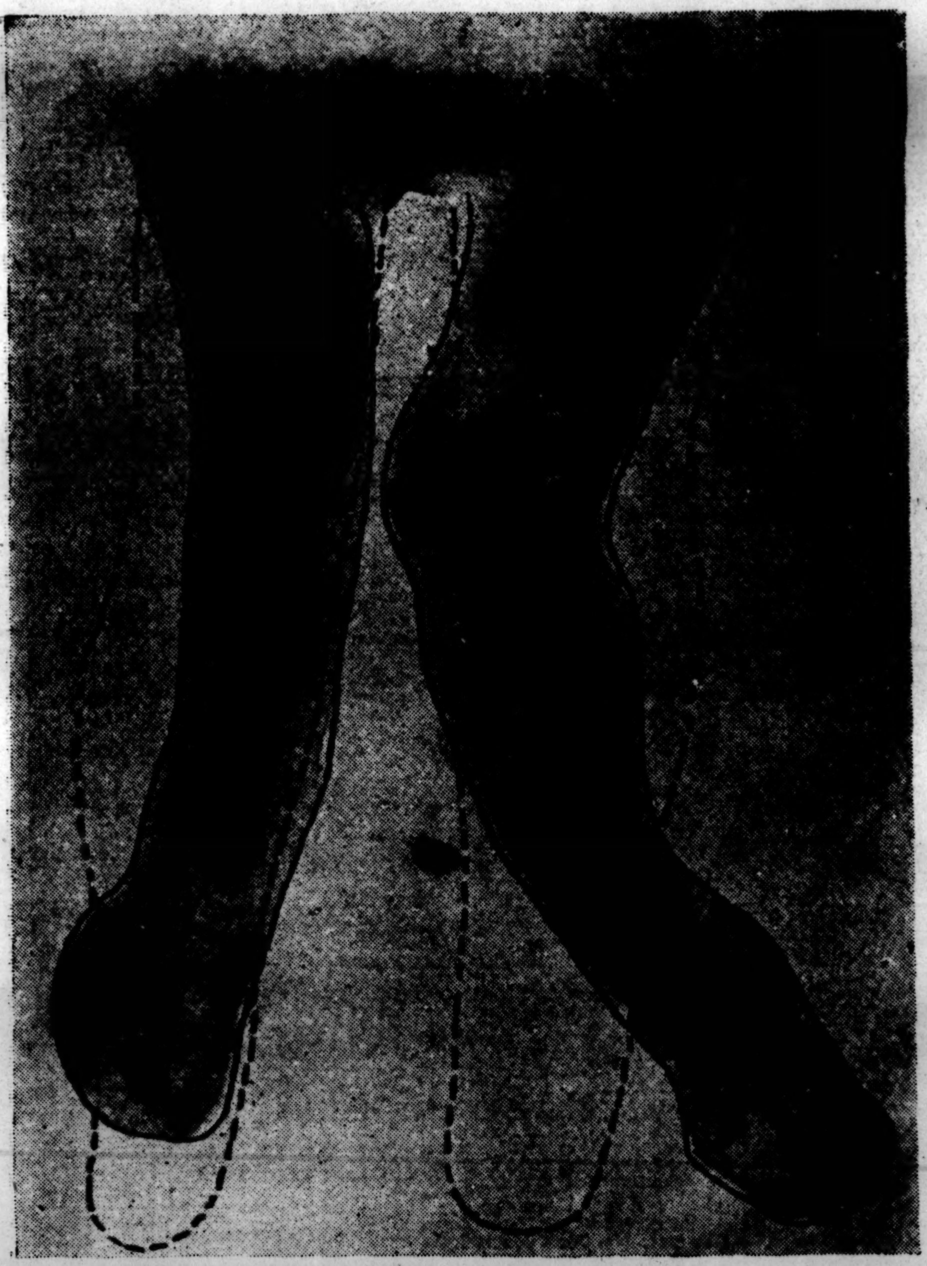
OSTEOCLASIS.



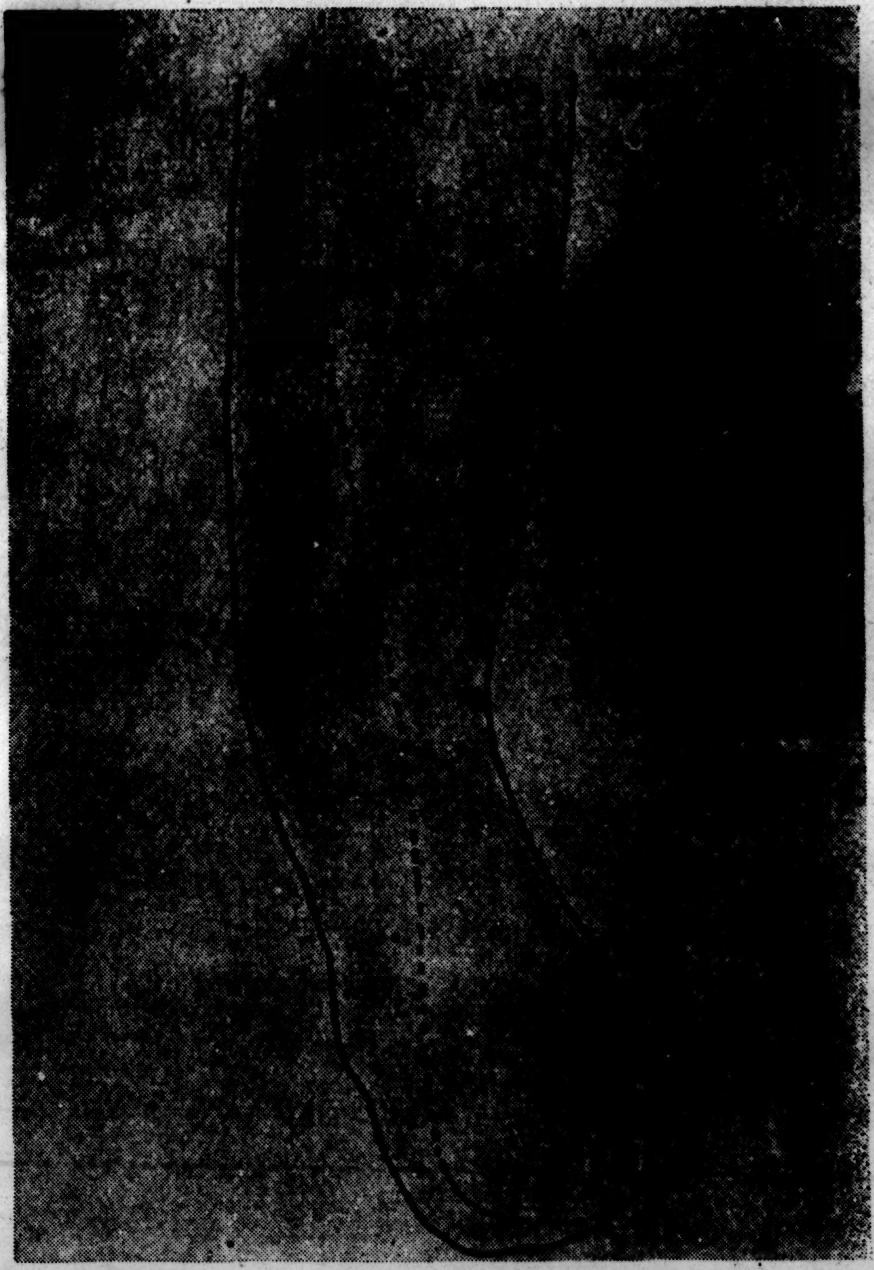
OSTEOTOMY.

The Expectant Method relies largely upon the efforts of nature (and there is usually a strong tendency towards the normal), aided, of course, by the hygienic and medical control of the case, and reinforced by frequent seances of manual force, applied in a manner to correct the deformity each time the force is applied. This usually succeeds in mild and often in medium degrees of deformity, when the patient is two years, and perhaps three years of age. The long curves of the femoræ and humeri, are especially amenable to treatment in this manner, at times, even in children much older than three years, but the tibial bowing and the deformities around the knees you can not expect to correct in this manner after the age mentioned, except perhaps in rare cases. It is usually taught that this manual correction should be made with "a very slight degree of force," "should be done gently," etc., but unless pressure enough is applied to definitely and visibly affect the deformity, it is very doubtful if any permanent effect can be obtained. I do not hesitate to apply force enough to materially straighten the bone, being careful to so hold the leg that the force shall not be exerted upon the ligaments of the joints, and that the epiphyses also shall have some degree of support during the strain. With these precautions I do not hesitate to, and teach the mothers to, apply to a small child 25, 30, and even 40 pounds, repeating the movements 6 to 10 times morning and evening. Children stand this well, and after the first 2 or 3 seances, make little or no outcry. Good results are often obtained in this manner, as will be seen from several of the tracings presented.

Mechanical Treatment has two divisions, ambulatory and recumbent. The ambulatory, meaning the attempt to correct the deformity, by the wearing of splints and braces during locomotion, is to be condemned. The chief result evident is loss of patience, excoriations, pressure sores, and loose joints, when the braces have had force enough applied to influence the deformity, and with no result except a "dragged out" child, when worn as ornaments as usually occurs. There is no doubt that any of these deformities can be corrected by mechanical appliances in the hands of the surgeon in young children and perhaps in older children, if the patient is kept recumbent during the treatment, but even here it is a waste of time and energy. If the child is to be confined to bed during the treatment, it is far better that the proper operative procedure should be adopted, the deformity corrected at once, after which simple retentive splints are alone necessary; the patient needs no special care, and in 6 or 8 weeks is up and about and in as good condition as he would be in as many months with apparatus alone. Besides this, he has been spared the pain and worry that are necessarily attendant upon slow correction.

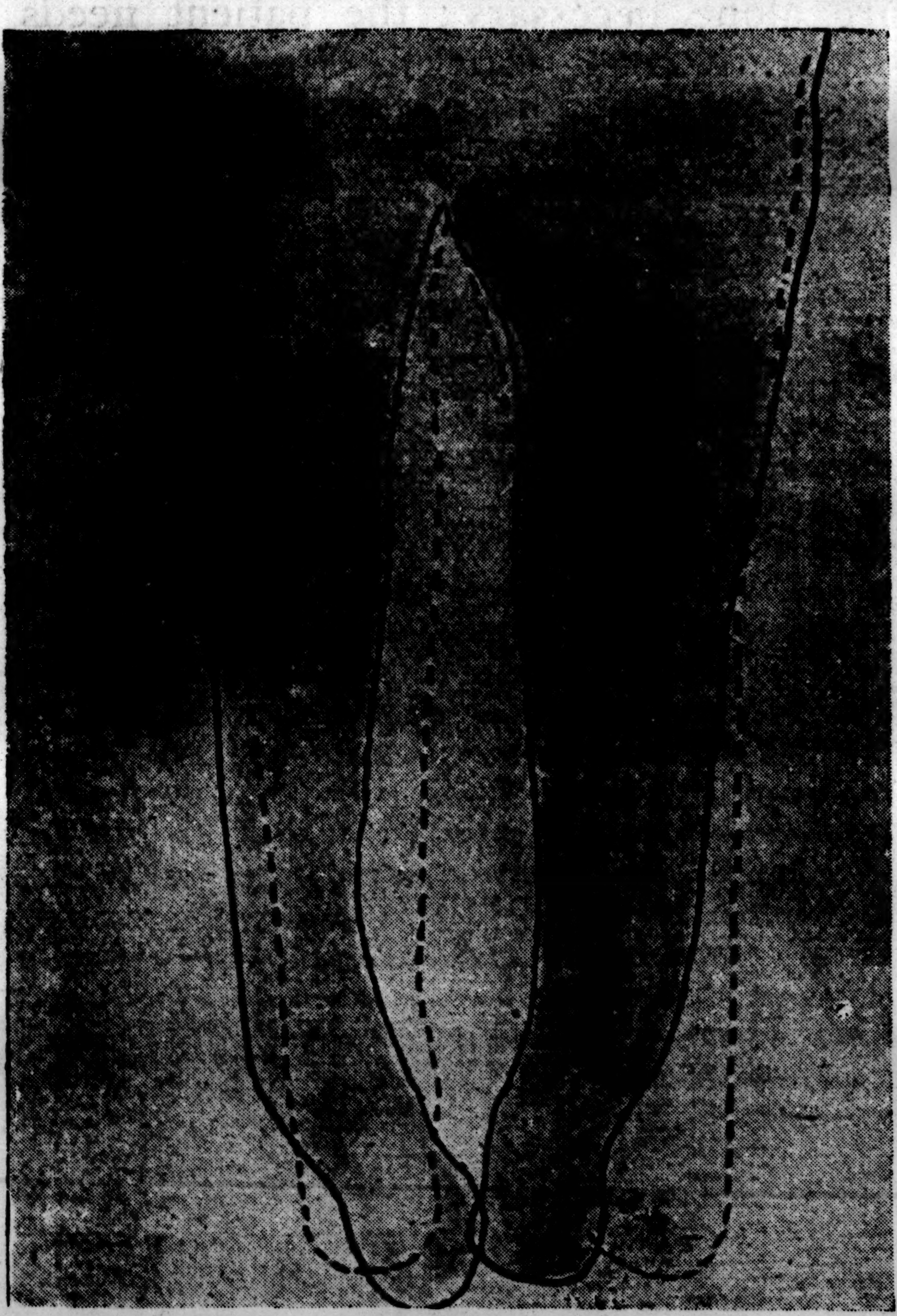


OSTEOTOMY.



OSTEOTOMY.

Operative Treatment. — There are three procedures: osteoclasis, osteotomy, and osteoectomy, all upon the bone; the division of tendons and ligaments being useless, except in rare cases, secondary to secure better and easier position after the bone operation. Osteoclasis is the simplest operation, and generally applicable in the great majority of cases, especially where the deformity involves most of the shaft of a bone, or the summit of the curve is not close to a joint. Away from a joint, this operation is generally entirely satisfactory, except, perhaps, in an anterior bowing of the tibia, consequent with more or less twisting.



OSTEOCLASIS.

Formerly osteotomy was more frequently done in older patients, the osteoclast not being powerful enough to fracture the bone after childhood; but this is no longer an objection, as the instrument we now use will readily fracture, and that too quite close to the joint, almost any bone. This instrument of Grattan is, as you see, of great strength and rapidity, and the force exerted is rather more of a blow delivered than a bending pressure. It is also an instrument of greater precision than the osteoclast of either Rizzoli or Colin, giving the line of fracture exactly as desired. It is claimed that it will fracture the bone within 2.5 cm. of the joint, but with no greater limit osteotomy should be preferred, but certainly this instrument of Grattan's will give safely the line of division much nearer the joint than the old osteoclasts. The operation varies little, no matter which of the instruments is used. The leg must be held in the osteoclast, so that both the force and the counter force is exerted within the limits of the bone operated upon, and not by any possibility upon the bone through the ligaments of a joint. An attempt should also be made to bring this force, if possible, within the epiphyseal lines, for reasons readily understood. It is usually taught that the force is applied, or more properly with the osteoclast of Grattan, the blow delivered at the summit of the greatest convexity, but for some years we have

OSTEOTOMY.

usually preferred the point of the greatest concavity, believing we get easier reposition and less danger of twisting before the blow, and often when there is a compound curve, this tendency to twisting is well marked. In rachitic bones it is sometimes amazing how much the bone will yield without any fracture, and often with the bone at a very sharp angle, when it appeared impossible that the continuity was still existent, and the leg removed from the instrument, the work had to be repeated. The force must be rapidly increased until the fracture has occurred, and usually it does not "snap with a report heard around the room" so graphically described in the books. When the "snap" does occur, however, it is convincing; but in other cases, and they are not rare, the force must be continued to a surprising extent or the work must often be repeated.

Osteotomy.—This is performed with the regular osteotome, marked as seen on the edge in inches, and this subdivided into ½ and ¼, in order that the depth of the point may always be in evidence and under control. The leg being supported on a sand-bag, the incision is made with the osteotome, the edge being held perpendicularly to the leg, and the division made by forcing the blade through the soft tissues with the hand, or preferably, with a smart tap of the mallet. When the bone is reached, the blade is rotated in the tissues, until the cutting edge is across the bone, into which it is driven to the desired depth, care being taken to prevent the blade binding, by a gentle swaying movement of the handle; if necessary, the blade is then directed forwards and backwards, so that the compact structure of the circumference shall be divided. No attempt is made to cut through the whole bone, for division of three-fifths of the circumference allows ready reposition of the deformity. This estimation of the extent of the incision should be fairly exact, as the whole operation is made through the same incision, and a second insertion of the osteotome, even through the same skin opening, opens the question of infection, and at least makes rather a bungling operation. The mallet we always use is the ordinary potato masher of the housekeeper, as shown to the society by Dr. Sherman, some two years ago. The osteotome being removed, the proper correction is made manually; the incision receives no attention, except being covered with a clean pad. Hemorrhage is usually slight, and needs no treatment, except the pad and bandage. The position secured is maintained with a plaster-of-Paris splint. When both legs are operated upon, it is our custom both after osteoclasis as well as osteotomy, to fasten both legs together with a plaster bandage, thus making each leg support and aid to straighten the other. Union is usually prompt and satisfactory.

Osteoectomy or Osteostomy.—This is performed through an open incision, and consists in removing a wedge of bone from the apex of the deformity, the base of the wedge being from the convex surface. To estimate the size of the wedge to be removed, a tracing is obtained in the usual manner, and within this the position of the bone is roughly drawn. A wedge of paper of sufficient size to allow the straightening of the tracing, is then made with the scissors and this wedge after the removal of the part representing the soft tissues, gives the base and depth of the bone that should be removed. For the operation the leg is laid on a sand-bag, with the convexity upwards, and the ordinary skin incision made to the bone. A crucial division of the periosteum gives better access, and the wedge is resected with the chisel, or the osteotome, and the mallet. The converging lines are arranged and directed so that they shall intersect just within the compact layer of the distal or concave surface. After the bone is removed the deformity is readily corrected. No bone suture is necessary. The periosteum and skin are closed separately and a plaster of Paris splint applied. The union after all these operations is generally prompt and stable, and relapse is very infrequent. We have had, however, two cases of non-union, one in which after several attempts good, although not absolutely solid union was eventually obtained; and in the second, no union has been secured up to the present, although various operations have been made, including the transplanting of part of the tibia of a young dog. In this connection I would like to call attention to an article by Edmund Owen, about a year since, in which occurs the statement "that in cases of non-union of the tibia in children, the history of medicine holds no record of bony union afterwards taking place, with or without an operation," and he asks the profession to report cases, if any, that seemingly contradict this rule. We also had a single case of relapse of the deformity, and this was in the same child where non-union occurred. Both legs were operated upon at the same time; a severe eczema developed in one leg, necessitating the removal of the splint and provision for frequent dressings; and in this leg we had failure to unite, while in the other, notwithstanding the union was prompt and solid, after some years the deformity recurred to a considerable extent. It is to me of considerable interest that both of these failures were in cases of anterior bowing of the tibia.

The Choice of Operation.—For deformities of the shaft at any point, when the apex of the curve is 5 cm. or more from the joint, osteoclasis is the operation par excellence in the great majority of cases. Close to the joint line osteotomy is always to be preferred. Of the special osteotomies as described by Macewen, Ogston, Chiene, etc., those that do not contemplate entering the joint cavity are greatly to be preferred to those that do so contemplate. Those on the lines of Macewen's are the best, but just as we prefer to fracture the bone with the osteoclast on the concave surface, instead of the convex, so we choose to make the osteotomy on the shortened condyle, rather than on the lengthened condyle, as done by Macewen and his followers. In rare cases with short curves, and particularly so in anterior bowing of the tibia, osteostomy seems to be the only method that gives good reposition, but these cases are rare and the operation appears less often indicated as experience increases.

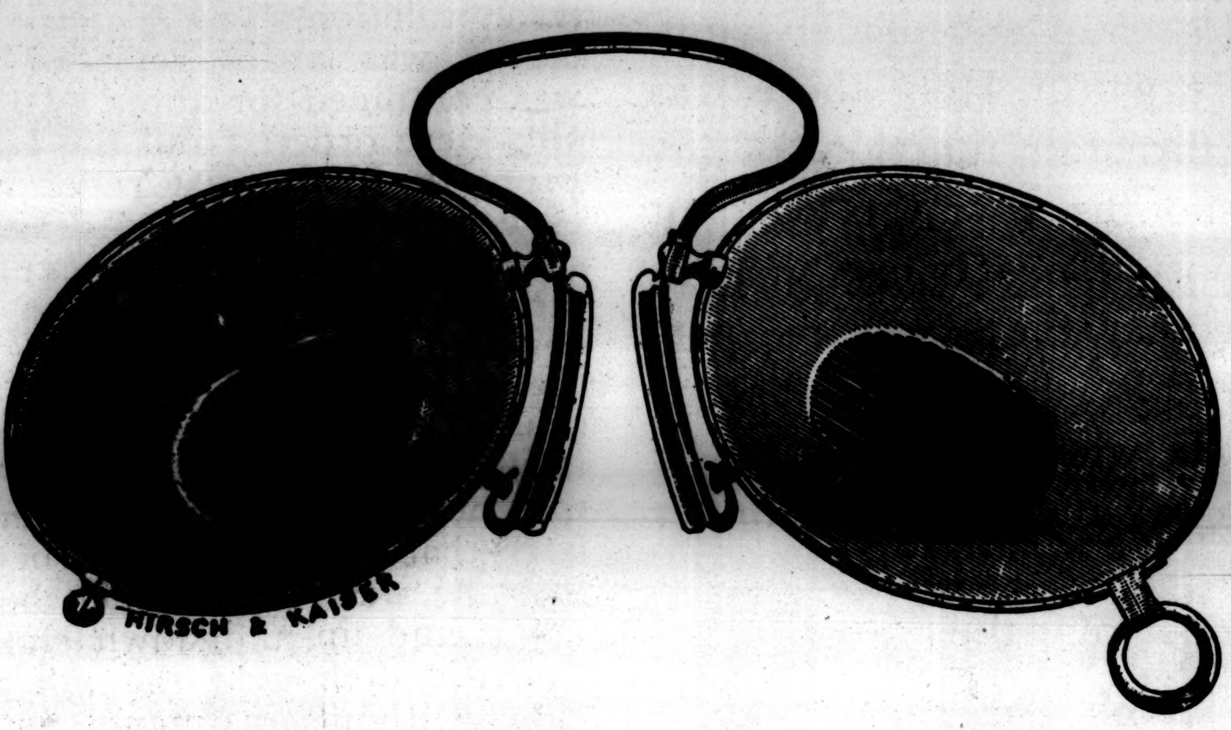
A NEW AND CONVENIENT ARRANGEMENT OF BI-FOCAL LENSES.

Case of Traumatic Enophthalmos.

By George H. Powers, M. D., Professor of Ophthalmology, Medical Department, University of California.

Read at Meeting of the Medical Society of the State of California, April 16, 17, 18, 1901.

Four years ago, compelled to wear bifocal glasses in my office work, and being very much disturbed by the action of the lower and stronger glass when moving about the room or reaching for an instrument at arm's length, I asked a skilful optician if a glass could be made on the plan shown in the accompanying figure, the idea being to enable the wearer to look downward as well as upward through his distance glass, instead of suffering the confusion of looking through his reading glass toward the distant floor downward. Having found great comfort to myself in the wearing of this style of bifocal, I began ordering it for patients, with nearly universal success in giving satisfaction. The whole glass in presbyopia or hypermetropia is adapted for distance, and the necessary addition for the near is attached by pine balsam. In myopia the near glass is the main one, and the elliptical distance glass is added above the center. The plate shows the glass as arranged for presbyopia.



CASE OF TRAUMATIC ENOPHTHALMOS.

Mr. ——, a car inspector of the Southern Pacific Company, while stooping to examine a car coupling, which was out of order, was struck on the head by a weight of 150 pounds, and his head violently driven downward, so that the right eye struck directly upon the head of the coupling-pin. The pin was driven into the orbit, and remained there, just as a monocle is worn, so that when the man rose up the pin stood out horizontally from the orbit. The patient tried to remove the offender, but could not, and, holding up the end of the pin to relieve the orbit of its weight, he walked the length of a long freight train to the station, when the company's surgeon tried in vain to pull the pin out until he administered chloroform, with the patient recumbent on the floor, and then by main strength pulled the heavy iron affair from its bed.

Iced applications were immediately applied, and the patient sent under charge of a nurse at once to the company's hospital in San Francisco. When I first saw the case, two days after the accident, there was no swelling, very little ecchymosis of skin or conjunctiva, no wound of the globe or lid exteriorly, the anterior chamber full of blood, the eyeball manifestly on a plane posterior to that of the left eye, no perception of light; pain varying in degree in the head, in the right anterior quadrant, but little pain in the eyeball; no discoverable fracture or displacement of any part of the rim of the orbit. On the right side of the nose, about half an inch below the orbital margin, was a large, thickened flap of skin, as if it had been lacerated and displaced and stitched back in position. Except for continuous applications of cold ice, cold boric acid solution, and occasional doses of anodynes, for relief of the pain in the head, with quiet rest in bed, no treatment was called for. The intraocular clot was gradually absorbed and the pain in the head disappeared, and at the time the patient went home, four weeks after the accident, a faint perception of light was noted, but the fundus could not yet be seen. The enophthalmos remained unchanged in degree and the palpebal aperture somewhat less than that of the other eye, which had not been in any way affected by the accident.

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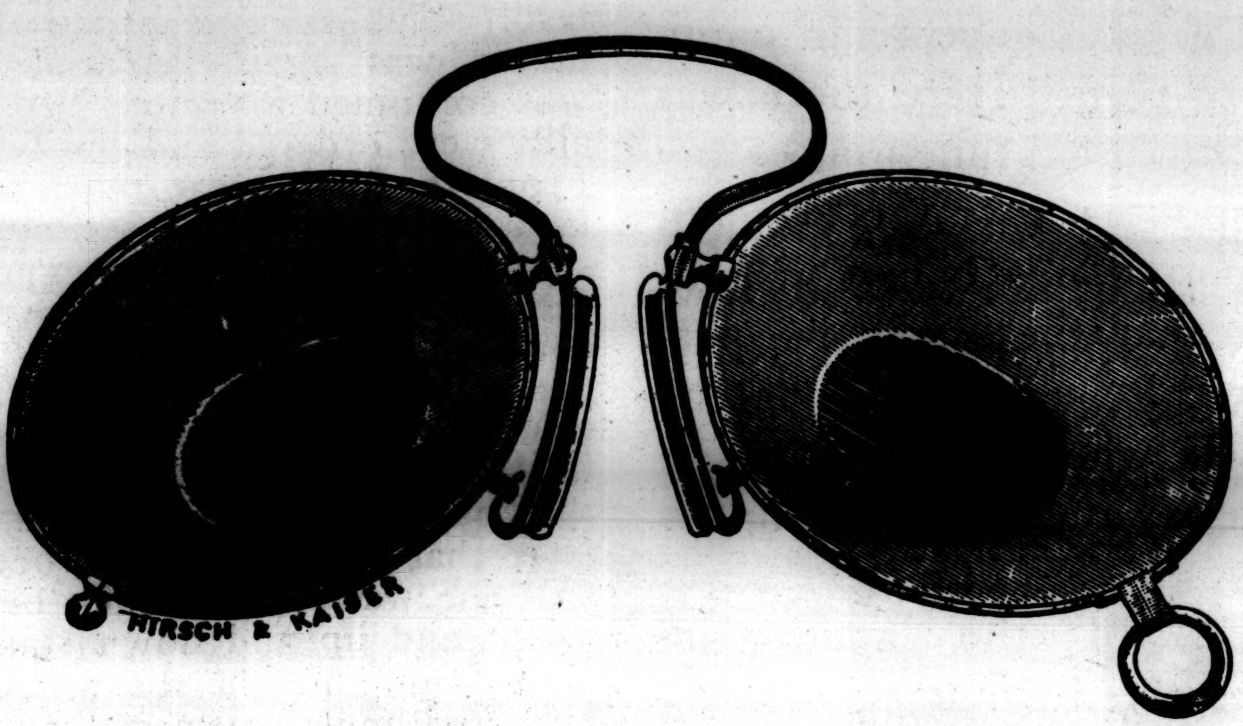

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I report the case as one which seems to me to confirm Dr. Shoemaker's theory, given in the July number of the "Annals." There was no lesion of orbital bones discoverable, no preliminary proptosis, and it would seem that any fracture of the orbit posteriorly must have produced greater encephalic symptoms than mere pain. Here there was no effect upon the brain functions of any kind. Three months after the accident the patient reported no change in conditions, except that there was no perception of light; it is probable that he deceived himself when he thought he distinguished a ray of light while under treatment.

A discussion of the anatomical changes here involved would necessarily be only a resume of the very exhaustive article above referred to, by Dr. W. T. Shoemaker, of Philadelphia, on the "Relation of Tenon's Capsule and the Check Ligaments to Enophthalmos." I can see no reason to doubt that rupture of these structures was responsible for the enophthalmos in the case here related.

HOSPITAL REPORTS.

Gynecological Clinic, Cooper Medical College, Geo. B. Somers, M. D., in charge.

Reported by Minora E. Kibbe, M. D.

RETROFLEXION WITH DYSMENORRHEA.

Clinic case 2897. Scotch, unmarried, age 23, first menstruation at 17. At beginning periods were very irregular, but have been fairly regular for last year. For two years patient has suffered with dysmenorrhea, which has continued to grow worse. Is often sick at her stomach during the period, and sometimes loses consciousness from the severity of the pain. Has treated with tonics, etc., without relief. Appetite is variable, constipation is persistent, and a constant dragging sensation is complained of, which keeps her tired. Physical examination showed depth of uterus normal, cervix enlarged, eversion of the mucous membrane at the os, fundus retroflexed, and considerable leucorrhea. An operation was advised, but was seriously objected to. Palliative measures then tried. After a hot lysol douche, one per cent, the patient was put in knee-chest position, and uterus brought into place by means of sterile sound, inserted into the canal. Some adhesions were felt in replacing the uterus. The os and cervix were treated with Churchill's tincture of iodin, and three small, borated cotton tampons introduced to keep the fundus in position. The next morning the patient removed the tampons, douched with hot lysol solution, and a few hours later the uterus was again replaced. The treatment was continued for about two weeks. Blaud's pills were ordered and the bowels kept open. From the first great relief was experienced, especially from the "dragging from the shoulders," as the patient expressed it. About the time the menses were to appear, she complained of some nervous shock following the treatments. They were at once discontinued. She was advised to rest in bed during the period, and to take a hot enema at the outset of menstruation. She reported later that the period had been painless, and that she was feeling much better, could walk about and up and down stairs without weariness, and thought she would be able to get along without treatments, as she was greatly averse to getting on the table. The hot enema retained as long as possible is an excellent therapeutic agent in pelvic congestion and pain.

ENURESIS.

Clinic case 2913. Age 17, American, history of heart disease in father's family; only disease she can remember having had was measles at 14. Has masturbated at times. Menstruated at 16, regular, no pain. Ever since she can remember has wet the bed. During the day has only partial control of the bladder. Is always worse in winter than in summer. Has never had even temporary relief from medicine. Has pain occasionally on urinating. Bowels are constipated; appetite fair. Sleeps very soundly. Examination of urine showed an increase in acidity, otherwise normal. Capacity of the bladder twelve ounces. On examination under anesthesia, pelvic organs appeared normal. Adenoids were found in the pharynx, and tonsils were enlarged. These were removed later by Dr. A. B. McKee. The plan of treatment is as follows: At bedtime a rectal suppository of extr. hyoscyamus and belladona aa gr. ¼ is inserted. At midnight she is awakened to empty the bladder. She rises early and takes a rapid cold bath. In the evening sodium bromid gr. 15 is taken, and before meals a tonic of liq. ferri albuminate and elixir calisaya aa parts. Three times a week her bladder is irrigated and dilated with one per cent boric acid solution, which she retains as long as possible. She is now able to retain 17 ounces for some minutes. Though relapses occur at times, improvement has been marked.

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Office of Publication, : : : 1121 Sutter Street, San Francisco.

THE PLAGUE, "AMERICAN MEDICINE," AND THE "PHILADELPHIA MEDICAL JOURNAL."

When we published the report of the Federal Commission on the existence of plague in San Francisco, and let it be understood we were the first to bring this document before the world, we realized that a stir would be created throughout the country, and hoped that any further discussion would be unnecessary. We believed that the facts would be received with joy; that the truth would be triumphant, and that our local Board of Health, our Federal Quarantine Officer, Dr. Kinyoun, and those who have aided in establishing the truth, would be completely vindicated and justly exonerated from the aspersions and charges so heinously brought against them by the public and several of the profession. To our utter amazement and disgust, however, not only have certain journals criticized the report, but have denied all praise, even charging neglect of duty and ignorance to those who, above all, deserve the very highest honors.

In an editorial, "Concealment of the Plague in California," the editor of *American Medicine* calls us to task for saying "that the Secretary of the Treasury and Surgeon-General Wyman signed an agreement that the report of the Federal Plague Commission shall not be made public; that all reports of cases of plague shall be suppressed," etc. In reply we desire to say that it is barely possible that neither the Secretary of the Treasury, Surgeon-General Wyman, nor the members of the California Commission, consisting of Messrs. H. T. Scott, T. T. Williams, F. Older, W. F. Herrin, and J. P. Young, actually and literally signed the agreement with pen and ink, but they signed it with their word in a solemn compact. As this excellent journal is authorized to deny that any actual signing took place, a circumstance that we scarcely took in its absolutely literal interpretation, we request it to give us proof that no agreement was drawn up on Saturday, March 9, and submitted later, if not for the purpose of receiving signatures, why was it drawn up at all, and why was not a verbal compact sufficient to the parties concerned, as they were all men of supposed integrity? We respectfully ask our most excellent and respected contemporary, if Dr. Wyman will deny that he has not asserted, possibly not in these exact words, that, for the sake of bringing about harmony between the Bureau, Treasury Department, and California interests and politics, and to *secure harmonic action, he felt convinced of the necessity of not giving out for publication all the facts in the case,*—that he has not ordered some of his officers in San Francisco not to give out the facts for publication? Will he deny that at least one of the members of that commission earnestly requested that certain officers of the local Board of Health would not report any cases, as the matter was not to be made public? Will he explain certain telegrams stating that an agreement had been made, which passed between the Secretary of the Treasury, members of that commission, and himself? Will he also explain why Senator

Perkins telegraphed to Mr. Goodall, of San Francisco, that an agreement had been made, if not actually signed; also, why Mr. Fremont Older sent a similar message to a prominent official of this city, communicating the fact that they, the "Commission, had been in conference with Gage, Spaulding, and Wyman," who were willing to do anything for the sake of harmony, and that an agreement had been made, and, if not to be signed, certainly to be equally as binding? Will Dr. Wyman explain why he thus openly defies the law, an international agreement, and violates his position for the sake of harmony, which was impossible of attainment, by agreeing to suppress information of this character? And, before concluding this paragraph, will Dr. Wyman deny the truth of the following editorial from the Sacramento *Bee* of April 16, which reads as follows:—

"The news columns of the *Bee* yesterday contained two articles, which, considered in their relations one to the other, were a significant commentary upon the debauchery of the high aims and principles and the honorable past record of the Marine Hospital Service. One of these articles was the report of the Federal Plague Commission, sent out by the Marine Hospital Service itself, establishing beyond any possible shadow of a doubt the existence of bubonic plague in San Francisco, and the other was the announcement that Dr. J. J. Kinyoun, Federal Quarantine Officer at San Francisco, who first asserted the existence of plague a full year before the printing of the report above referred to, and on which account has been subject to every conceivable form of attack and abuse, had been transferred to the station at Detroit, Michigan.

"Placed side by side, these two news articles seem the very personification of irony. One marks the successful culmination of a twelve months' fight for frankness and honesty against lying and concealment and the other the equally successful culmination of a coincident fight for the removal of the man whose integrity and ability proved an insurmountable obstacle to such lying and concealment. . . .

"A proper characterization of such an act is almost beyond expression. It is an act which holds out to every attache of the Marine Hospital Service a premium upon stultification and a warning against honesty. It is an act calculated to keep from and drive out of the Marine Hospital Service every man who would be worth a day laborer's pay in it. It is an act which is in itself a standing insult to every man who remains in the service, from the hour it was performed.

"The most scathing arraignment of Surgeon-General Wyman's course comes from his own mouth, and is contained in an address by him, delivered May 8, 1900, extracts from which were sent out, with conscious or unconscious satire, with the very communication ordering silence on all matters relating to bubonic plague in San Francisco. These extracts say:—

" 'On this subject a well-known sanitarian of the United States, himself a state health officer, eight years ago wrote and published the following: "Communities themselves have encouraged the growth and are wholly to blame for the pernicious and suicidal spirit of concealment of pestilential infection. They have pandered to the vicious passion of a trade element, as merciless as it is sordid and depraved, and are ever ready to raise a hue and cry against a physician who makes properly known a case which his professional knowledge leads him to know or suspect to be a case of cholera or yellow fever. Smallpox speaks for itself. The community in this matter, therefore, becomes not only a partaker in, but the instigator of, this mighty guilt. The saloon-keepers, innkeepers, and petty trades people have fostered many a sweeping epidemic. Feeble-spirited and superserviceable health authorities, and even bureaus of government, timorously submitting to the dictum of this unrighteous mammon, have suppressed and do now suppress the truth; have falsified reports, and have consigned states and nations to the ravages of unresisted pestilence, when thousands of lives might have been saved by timely flight, and distant communities forewarned, might have protected themselves." ' . . .

" 'The subject of prompt announcement is so woven into the affairs of practical municipal and maritime sanitation as to necessitate its fullest recognition as an elementary and indispensable part. It is inconsistent with every known law of God, of every principle of sound policy, and of well doing among men, that an individual or a city or a state can successfully protect itself behind the flimsy barrier of a lie, particularly in dealing with the phenomena of nature. If a case of cholera occurs in a city and be hidden under the disguise of a simple intestinal derangement, to avoid public clamor and injury to the commerce and revenues of the state, the last hope of destroying the contagion is wiped away, and thousands of lives and the general ruin of industry must pay the penalty of the sordid, short-sighted, wretched policy. So of smallpox and so of yellow fever. *The deadliest enemy of a state is the man guilty of intentional concealment.*' [Italics ours.]

"The mind of the man who can utter such sentiments, and before the echo of the words have died away, can instruct his subordinates totally contrary to such sentiments, is a study for the psychologist. . . ."

If now Dr. Wyman did not actually sign this agreement, he certainly verbally assented to it, binding himself in honor to do certain things, which is more to us than the actual signing. If he did not sign it in black and white, we are ready to make reparation; but for the honor and good of an honorable service and those whom he controls we believe that it is plainly his duty to place himself right in their defense as well as his own; and before he enters upon the task it would be well for him to tell why, after publishing a list of cases for nine months, and after having these cases verified under his own supervision, he failed to report nine cases that occurred between January 1 and March 9, 1901. We respectfully ask if it was not at the demand of that honest Texan, Dr. Blunt, or at his instigation, that on the latter date they appeared in the *Public Health Reports*. Finally, if the distinguished and respected editor of *American Medicine* needs more convincing testimony to the above than Dr. Wyman is willing to give, it will be cheerfully furnished.

The second article, which deserves the scrutiny of the profession, is an editorial in the *Philadelphia Medical Journal* for April 27, entitled "The Plague Situation," which is as superlative an exhibition of wilful ignorance as has been displayed in this whole affair. It is an astonishing epistle from a journal which has received full and complete reports of all cases occurring from March 6, 1900, to date. It is not content to condemn the local officials, but intimates that the Commission did not perform its task as completely as it should have done, in whose behalf we desire to inform the writer that this Commission was ordered to determine whether plague existed in San Francisco, and there was never the faintest reason why they should enter into an historical dissertation on the occurrence of the disease in other parts of the world. They were sent for the specific purpose of settling a question in diagnosis to the satisfaction of politicians and financial interests. Their report was to be a plain statement of facts, not technical, but so drawn that it could easily be understood by laymen, as the existence of the disease had been demonstrated to the profession too thoroughly to need further comment. This Commission truly did its work well, and confirmed every statement that had been previously made that the disease existed here, and to a greater degree than the number of recorded cases would lead one unacquainted with the facts to believe. Their energy was very commendable, their work was admirable and most thorough, and even they will bear us out in this assertion, that it was no more so than that of the Federal Quarantine, and our local officers, except that this Commission was given an aid by the Chinese and an *entree* to their sick never accorded any one except possibly those who, under their employ, had endeavored to deny the truth. The report really asserts this.

When the editor states that "the disease was there and was waiting for them," it tells a truth well known to even those who have denied the fact; but when he asks, "How long had the plague been there?" inferring that it was not previously known, we can inform him that it has existed in San Francisco since the 6th of March, 1900; according to the Chinese, from December, 1899, or January, 1900; according to the latest unpublished report from Dr. Wyman, possibly since 1897; and according to reports in possession of the Board of Health, possibly since September, 1898.

"How many victims had it already claimed?"—To February 6, 1901, 25, and to date 35, all dead, and how many more, we answer with the *British Medical Journal* of October 27, 1900: "How many Chinamen have died of plague; how many corpses of such persons are now waiting shipment to China for burial, no white man knows, or ever will know." And how many are being buried beneath the buildings, not even the Chinese know. The above quotation is inferentially verified by the report of the Commission that found 6 cases between February 6 and 12. Between the last date and April 4, when absolutely nothing in the way of inspection or disinfection was done, 4 more cases were reported and allowed to be found, because of the measures that had been instituted to suppress all knowledge of its existence. Since April 4, when inspection was again begun, no cases have been found. It is preposterous to suppose that from April 4 to 14 no deaths occurred in Chinatown; none were reported; and that since the 14th no acute case of disease of any kind has been reported, all deaths being due to chronic troubles. It is also worthy to note that the deaths from nephritis, of one kind or another, are out of all proportion to former death rates and to the history of the disease. The truth is too plain that concealment is and has been the order of the day.

"What had the local authorities in San Francisco been doing all the while?"—Working steadily and nobly, as best men can without means, against the greatest odds ever offered a board of health; condemned by governor, press, pulpit, people, and certain physicians as slanderers, liars, criminals, thieves; opposed by prejudiced courts of law; harassed by powerful financial and commercial interests and politics of state and partly of Nation, and to-day denied the meanest measure of praise by well-informed medical journals! They have reported 25 genuine, verified cases of plague, 2 of the pneumonic form and 23 of the bubonic and septicemic forms, 4 whites, and 22 Asiatics. "From all that we can gather from the report, we judge that the local authorities were not in command of the situation." This statement is perfectly true, and we can positively say that, under similar conditions and difficulties, no man or men, no city, no state, no government, and not even Philadelphia, with her medical journals, could ever command the situation, and we desire to be understood when we emphatically assert that the only power on earth that will ever command the situation to the eradication of plague in San Francisco's Chinatown is fire, and the sooner our public citizens and commercial interests realize this the better.

That "the Commission had to undertake the investigation *de novo*," is absolutely false, and is disproven by the report itself. Dr. Novy, one of that body, had already declared that plague existed in Chinatown, in an article published in *Popular Science Monthly* and copied in the *Pharmaceutical Review* for November, 1900, which was based on the work done by the Federal Quarantine Officer, Dr. Kinyoun, and our local authorities. Besides, there was placed at the command of these gentlemen, upon their arrival, all the documents, all the reports, public and private, of cases, all the experience, all the aid and assistance of the Marine Hospital Service, of the state bacteriologist, Dr. Ryfkogel, and of the bacteriologist of the San Francisco Board of Health, Dr. Kellogg. How, therefore, such a statement could be conceived, in the face of what has been published, of all that had so fully been verified before the advent of this Commission, which is or should be on file in the office of our belated contemporary, is to us beyond human credence.

"No report of previous cases apparently was given them!" Such stupidity it heart rending! "No evidence of scientific study before their arrival was forthcoming!" How strange! How infamously absurd! Even the commission must smile at this sample of Philadelphia erudition! It is only worthy the San Francisco daily! And that is saying too much!

"But these local authorities themselves seem either to have had no exact knowledge of the situation or else had, ostrich like, closed their eyes to the real dangers." What ignorance, wilful and stupid! Beyond all this is the work of some cunning hand. Will the persecution ever end? Is it not sufficient to destroy the power of a body without persecuting the individual? We sincerely urge the writer of this truthful and brilliant narrative to review the columns of his once-reliable journal, and if they have been lost in the recent upheaval, we will furnish him with information that will reveal who is the "ostrich," and what is his kind.

"To say that they have been deliberately concealing the truth is to make too serious a charge," not for the *Philadelphia Medical Journal,* "but one can not read this commission's report and not feel that it is at least a strange fact that the situation depicted in it had been allowed to continue in San Francisco without recognition, while the rest of the country was being assured that there was no plague in that city." That the situation had continued without recognition by the health authorities, both city, state, and federal, is not a strange fact; the statement is maliciously false. That the rest of the country was assured that no plague existed in this city is defiantly untrue, as verified by the tables in the report of the commission. That the country was being informed that there was no plague by our daily press, a few medical journals, a governor, in whom the truth is not, by interests political and commercial, we blush to say, is too true. That the country was being assured by local officials, the Marine Hospital Service, until recently, and the honest journals of the country, is false, and the *Philadelphia Medical Journal* knows it.

The closing paragraph of this erudite article is not drawn with any more honest hand than those that have preceded. The commission found six cases, and they proved the correctness of the diagnosis by the very same means as had been used by the local investigators; they added nothing that was not known; they simply confirmed what had been as thoroughly done under circumstances that have no parallel in medical history. Every statement in this report had, previous to 1901, been transcribed. Every recommendation had been anticipated, and the very meat and substance had been in the hands of the Supervising Surgeon-General,—the work of Joseph J. Kinyoun in his official capacity as quarantine officer, and should have been made public. It is to F. P. Wilson, W. H. Kellogg, and J. J. Kinyoun—while not in the least disparaging the praiseworthy work of the Commission—to their intelligence, ability, and integrity, that the knowledge of the existence of the disease in California is due, and was verified by identically the same "thoroughgoing, honest, and scientific methods." For a complete verification of these statements we refer the writer to the reports of all the cases which have been published in the OCCIDENTAL MEDICAL TIMES during the past year.

It is useless to add that this last criticism was not penned in ignorance of the facts. There is more behind it than appears on the surface. If this journal alone had seen fit to thus display itself, there might have been some reason for leniency, but others have given vent to equally severe criticism. It has filled us with dread lest the powers that have forced all facts to be suppressed, that have removed Dr. Kinyoun because of a conscientious and honest fulfilment of his oath of office, that have dogged his every step and action, are at work in other fields. We trust that certain individuals will evade any liability to further criticism, and not lend themselves to the coercion of the profession. We have long suspected that some unfavorable influence has held a threatening or pleading hand for mercy over the sanctums of some of our editors. Too many have been silent in an emergency where concerted action for self-protection is demanded. For the sake of medical journalism we tremblingly hope that this suspicion has no truth for its foundation. We appeal to you to stand firm for the truth; for the end is not yet, and the horoscope of the future has no silver lining. Our daily papers assert still that there is no plague, and that the question has simmered down to a wrangle between a few medical journals. This is neither all nor the worst feature of a threatening situation. It has been asserted by one high in office that the measures now being carried out are merely to prevent future catastrophes, and hence can scarcely be considered radical; therefore two dangers confront us,—further infection of this and other states, and the destruction by politics of all force of quarantine law. This we believe to be the greatest danger; for, discredited as it is by the action of the chief officer, with an opposition that has for years unrelentingly fought its rulings, there is but a short step to ineffectiveness, as has been shown in California, and to complete annihilation of its power. At this very time and in this state and nation we fear that there is on foot a deep-laid scheme, not wholly confined to one class of people, that will greatly aid in bringing about this result, and above, around, and stealthily fixing its fangs, by means of these efforts, to nullify scientific medicine there is creeping to the surface a creature that, concealing facts from gaze, hiding away death and disease, will, in the end, declare that all the means now being used are inadequate; that they have failed; that no disease such as is asserted really exists; that the work is ended; that it is a failure. And when it has firmly and defiantly fixed its leech-like arms around law and order, another immolation of honesty and honor in behalf of merciless corporations and false, faithless men will be made.

THE STATE MEDICAL SOCIETY MEETING.

The Medical Society of the State of California held its regular annual meeting on April 16, 17, and 18, at Sacramento. The sessions were held in the Senate chamber of the state capitol which afforded a very excellent and commodious place for the purpose. The attendance was large and fairly representative. The program, conscientiously carried out under the guidance of the president, Doctor Ross, was quite in keeping, from a literary point of view, with those of previous meetings. It was not crowded, but sufficiently full to hold the attention of the members. Some of the papers were very carefully prepared, and disclosed a creditable degree of scientific thought and labor. Only a small number were read by title, which always encourages the belief that they were written with a definite purpose, and not merely as advertising mediums. While several were exceptionally good and quite in the advance line of progress, the discussions were a distinct disappointment. The best papers were passed over almost without a word. This is never a favorable omen, nor does it presage the hope that those present were fired with the importance of the intellectual and literary part of the program. The best index of the strength and vitality of a gathering of this kind is the free and willing expression of opinion in praise or censure of the views advanced by the readers of papers. Failure portends either no acquaintance with the subject or an indifference, which chills scientific advance by silently throttling the student in his work in behalf of mankind. This condition, while more or less prominent at previous meetings, was rendered very conspicuous by the energy and vivacity exhibited in the consideration of papers of moderate value and questions which either should have been settled long ago, or should never have been brought before the body, except to be approved by a unanimous vote. This too evident spirit of indifference to the purely scientific work, the real object of such meetings, afforded an excellent clue to the intent and temper of so large a gathering, and if it must be made the criterion by which the Sacramento meeting is to be judged, then it was only fairly successful.

The parts of the program, however, which elicited the closest attention and drew the largest audiences were a series of resolutions introduced to place the society on record as to the existence of plague in San Francisco, and censuring certain bodies for dereliction of duty to the people of this and neighboring states; also the election of the state board of examiners, and incidentally the election of officers of the society for the coming year. The debate on the plague resolutions was a feeble echo of that which had taken place a few weeks previously in the same hall; it was actuated by the same unfounded bitterness and unfairness; it was the same contention from the same sources with the same object. With many the truth from a strictly medical and professional standpoint was the end to be recognized by their passage, with the hope that the medical profession of California would so emphasize its belief in the existence of the disease that they could no longer be accused by their fellows of failure to sustain a verdict that had been proven beyond doubt. The opposition added nothing new to the untenable arguments that have been scattered so broadly during the last year. They fully confirmed the folly of their position when they voted in the affirmative and carried the following resolution:—

> Whereas, It has been shown by the United States Commission that plague has existed, and probably does exist, in San Francisco;
>
> Resolved, That this society express confidence that the San Francisco Board of Health, the State Board, and the Government Commission will be able to watch and take proper measures for its suppression.

Those who voted in the negative were holding out for stronger terms to secure a just recognition for those who had, under the most unjust censure and stringent measures by local and national authorities, manfully and truthfully reported the facts. The vote, therefore, was practically unanimous, and the society dubiously set itself right before the world.

The other question which promised to enliven the situation was the election of members of the State Board of Examiners under the new law. Upon due reflection it was decided that the better policy was to make selection from the profession at large, and leave the matter free from any entanglement with the schools. This idea prevailed, and the election passed off without incident.

Altogether the meeting was very pleasant and profitable. It was amusing to watch the phases of political maneuvering in so small a body. No cunning was needed to discern the combinations, trades, and reconciliations necessary to prevent, as was urged, discord and to maintain peace and harmony. Considering the elements by which this doubtful harmony was secured, the question naturally arises, Has the end been attained?

It is extremely improbable that interests that for years have been so diametrically opposed in aim and action could, on so slight a foundation, remain long in happy concord. It is more than probable that the love feast witnessed at this meeting was but a scheme for power on the part of some, and an effort to sustain certain statements by others. Such blessings, peace and harmony, are almost unknown factors in general societies, such as our state society, and unless these desideratums are secured on terms appealing, as an universal good, to each and all as individuals and members, in which temporary power, preferment, or financial gain have no bearing, the results obtained by such coalitions are fraught with jealousy and end in disaster; but not until the reputation and standing of some have been rendered liable to question. At the bottom of these coalitions there is no common object, no love, and nothing tangible; the fear, however, lest some advantage should be gained was the occasion of the efforts to suppress the truth and to secure certain concessions, even at a considerable disadvantage. It was a sacrifice on the part of some of honor and name, long and zealously guarded, but incomprehensibly laid open to suspicion. Another faction had much to gain and nothing to lose; while a third was led by motives purely financial, and at the domination of commercial interests. It is to be deeply regretted that the society did not rise up and manfully declare itself in favor of scientific medicine. It was strikingly a political meeting, and surely, as is customary, strange and varied influences worked together for the attainment of their ends, which, because of their character, can not be conducive to the highest motives that should actuate those who love and cherish the honor and advance of the medical art. To this prominence of politics one great good must be accredited. Eighty new names were added to the roll, the highest number probably ever elected at one meeting.

To the Sacramento Society for Medical Improvement and the Committee of Arrangements the visiting members owe a debt of gratitude for the extreme courtesy, and the excellent banquet which filled out the hours till early morn. The following officers were elected for the ensuing year: President, W. J. G. Dawson, St. Helena; first vice-president, F. B. Carpenter, San Francisco; second vice-president, F. L. Adams, Oakland; treasurer, E. E. Kelly, San Francisco; secretary, G. W. Evans, San Francisco. Place of meeting, San Francisco.

NOTES.

We earnestly request all subscribers to notify us at once if their copies of the "Times" are not received promptly. Any change of address should be sent to 1121 Sutter Street, San Francisco, to insure prompt delivery.

On account of various requests the session of the New Orleans Polyclinic will be continued to May 31, instead of May 11, as announced in catalogue.

The following interesting clipping is taken from the Sacramento *Bee* of March 16:—

WYMAN'S CHICKENS RETURNING HOME.

"Surgeon-General Wyman is evidently worrying not a little over what the people of California, and particularly the members of the medical profession, have to say of his action in truckling to the politicians and commercial interests against the interests of public health. When he learned that plague was to be discussed at the meeting of the State Medical Society, and that Dr. J. J. Kinyoun, the official of his service who has been so shamefully treated, was to be one of the speakers, he wrote to Dr. W. G. Downing, of Suisun, asking him to report to him what was said and done.

"In the letter which Wyman wrote to Dr. Downing he said that a paper in Sacramento, the *Bee,* had published an agreement made with the California politicians and had also stated that every effort was to be used to suppress the facts with reference to plague in this state. He wrote that he did not care so much that the *Bee* had published this, but when the copies of the paper began to pile up on him with every mail it was not calculated to put him in the best of humor.

"It is an unwritten law in the Marine Hospital Service that whenever any officer of that service finds in any newspaper anything touching upon marine hospital work he shall at once send it to the surgeon-general. Evidently the *Bee* has circulated pretty generally among the quarantine officers, and Wyman's chickens have been getting home to roost."

SOCIETY PROCEEDINGS.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting, March 12, 1901.

President Geo. Evans in the chair.

CANCER OF THE UTERUS.

Dr. H. A. L. Ryfkogel read a paper "Early Diagnosis by Microscopical Findings."

Dr. Jas. F. McCone read a paper "Clinical Symptoms and Diagnosis."

Dr. J. Henry Barbat read a paper "Treatment."

Dr. E. Rixford: I have listened with interest to the papers, and would quite agree with the last speaker in his remark emphasizing the necessity of early diagnosis. Every one who does operative work has it forced upon him time and again that cases of malignant disease come too late for the surgeon to do more than a palliative operation. This is quite as true of cancer of the uterus as of cancer elsewhere, and, in my opinion, more so, because of the greater difficulty in making the diagnosis early, due largely to the fact that the disease in this situation is out of sight and causes practically no symptoms in the beginning, and neither patient nor physician is aware that there is anything wrong. In Germany they claim to have better operative results than we do in America, and they explain it on the ground that they see the cases earlier. It is an important matter of education of our women that they should appreciate the necessity of submitting to examination by a competent physician when there is the least evidence of uterine trouble coming on in middle life. In regard to the operative technic, there is nowadays considerable discussion as to whether the vaginal route or the abdominal route is the better. Professor Olshausen, of Berlin, is a great advocate of the vaginal route, as is also Professor Landau. That the matter is not definitely settled may be inferred from the fact that such a man as Howard A. Kelly, of Johns Hopkins, advocated for a long time, with all the force at his command, the abdominal route, and not long since changed over to the vaginal route. The fact is that the vaginal operation, when it can be performed, is a much less severe onslaught on the body than the abdominal operation, and will have a far lighter mortality from peritonitis. It, therefore, will probably have a legitimate place in the treatment of very early cases of cancer of the womb. The abdominal route is, of course, the only route which is admissible for cases which have gone far enough to make it at all probable that the pelvic glands are infiltrated or the tissues of the broad ligament, and inasmuch as the greater majority of our cases come, as I have stated, at a time when the disease has well advanced, the abdominal operation will be far more frequently required.

Dr. J. Rosenstirn: I must say, with all due deference to the speakers, that I expected to-night something of a more individual stamp, instead of a symposium of various data known to those who occupy themselves with this branch of medicine by careful perusal of the current literature. I would have liked the skilled and learned gentlemen to have given us an abstract of their own experience with the vaginal or the abdominal route, histories of their cases, telling which of them are better attacked through the vaginal route, or why better through the abdominal route. This question of the preference of routes is still a very open one, and if one route should be chosen for all cases of uterine cancer. The change of heart of some of our best men has already been mentioned; the last speaker might have added that Kelly had changed again, and his assistant, Doctor Cullen, has just published a beautiful, illustrated book advocating the abdominal route. While I believe that the abdominal route is the most thorough and surgical one, its immediate mortality is far greater than the vaginal one. I am sure that all operators and every one of the speakers who advocated the abdominal route to-night, agree with me on that point. Perhaps the future, remote or near I do not know, may, with improved technic, bring better results; at the present it is still in an experimental stage. Freunds' original operation for the abdominal removal of the carcinomatous womb, improved by various operators, as we have heard to-night, depends on the results of a very much larger experience than we possess now for its true standing, especially as to the cases that call for it. Neither the time limit, as to how long after operation recurrences have been observed, nor the duration of life from the beginning of the disease according to their experiences, has been mentioned by the gentlemen to-night. I believe it to be quite an important item, in order to determine how much our patients are really benefited by the operation, in various forms of carcinomata of the uterus. I had the opportunity of observing a case in its natural course from the early beginning of the disease to the end. It was in a married woman, who had noticed, the first sign of her sickness, the frequent symptom of a postcoital hemorrhage. Upon examination a small cauliflower growth was found on the cervix. She flatly refused all operative interference during a period of eight years of continued observation after the first examination, during which time she attended to the exacting demands of a large household, and, till near the last, to her matrimonial duties as well. At the end of the eighth year she consented to some palliative operative treatment, and passed out of my hands. She died some months later. If primary operation had been made, and the operator had not the chance of seeing her later, she would have swelled the statistics of the cured cases with her exceptionally long survival. I hope that some of the speakers of to-night will favor us with their experience at the close of the discussions. I would have compiled some of mine if I had thought nothing better would have been offered here. I have operated in thirty-three cases through the vaginal route, with two deaths only following the operation, but also only one cure, now lasting over five years; all the others have since died. My results of operation for carcinoma of the uterus have been very disappointing. I have operated only once through the abdominal route, and that patient is alive yet; she was operated on seven months ago, and, as far as I can find through examination. there has been no recurrence.

Dr. C. E. Cooper: Having seen some of the work of advocates of both methods of hysterectomy, I am more and more impressed by the advantage of the abdominal route, as practised by Dr. Howard Kelly. If a hysterectomy is necessary at all, then it is necessary to remove the pelvic glands if they are affected, and it is certainly much more difficult, if not impossible, to do this by the vaginal route. Doctor Kelly, as has been said, has again changed his views. because of changes he has made in his technic, and a comparison of the two methods of operating should be based on results of the latest technic of the best operators only. I believe that when a number of competent operators have given us their statistics after operation by the Werder method, the abdominal route will have the preference. A word should be said as to the early diagnosis of carcinoma of the uterus. There is a symptom which occurs early, and is frequently wrongly interpreted. It is an increased or more frequent menstrual flow occurring in women between forty and fifty years of age. This symptom should not be passed over lightly, but carefully investigated. A curetting and examination under the microscope at the first manifestation of this symptom might, by making the diagnosis very early, be the means of saving life.

Dr. B. MacMonagle: We are told that the cause of cancer has not yet been definitely ascertained, therefore our efforts and means to the end of prevention are considerably obstructed. However, we are in possession of enough facts in regard to the character, growth, symptoms, gross and minute appearances, and such exact and general methods of investigation, that we can detect cancer in the earlier stages. This puts us in a position to take the best known means to combat its advance. The means of investigation, microscopic and bacteriologic, have been admirably set forth to you by Doctor Ryfkogel. The symptoms, use of material and facts gathered from observation, questions and examination, grouping the whole and making a diagnosis, have been admirably brought out by Doctor McCone; and Doctor Barbat has clearly set forth the treatment from his point of view. Inasmuch as trauma of the uterus and cervix are held to have a causative relation, both those of labor and those of the instruments, and the methods of treatment of certain conditions and diseases, it seems one of our best means of prevention can begin in regard to preventing those injuries, and when this is impossible, at least repairing them before they have caused grave conditions. This is the pre-cancer stage, and the proper repair of lacerated cervix, cure of endometritis and other local diseases, are in this stage. There is little doubt that many cases of cancer can be avoided if the patients and attendant will coincide in proper treatment of the laceration, etc., at the proper time. This involves the careful examination of all cases after confinement and surgical proceedings, and immediate attention to any abnormal condition. All cases, in which any of the earlier symptoms arise, should be carefully examined by the most approved method, not stopping short of a careful microscopic examination of part of the diseased tissue. These examinations being made in all cases, and a definite diagnosis arrived at as early as possible, our treatment can be carried out according to the stage of the disease. In the earlier, the surrounding tissues not yet affected, the uterus movable, and the patient's general condition justifying, I believe we can bring about a small per cent of cures, prevent an endless amount of suffering, and prolong comfortable life. In a large percentage of cases a complete abdominal hysterectomy, removing ovaries, tubes, uterus, and lymphatic glands, as far as possible, is by far the best treatment. By the vaginal route everything can be removed but the iliac and lumbar glands, and the dissection of the broad ligament can not be so thoroughly and safely done; the risks of infection are quite great. Chances of including the uterus, the bladder, or the rectum in the dissection are much greater, nor can these injuries when done be so handled that ill consequences will not result. The chance of reinoculation is certainly quite great. When a radical operation for cancer of the uterus or adnexa is to be done, the abdominal route seems to be much preferable. When the disease has advanced so far that a radical procedure can not be carried out, decided benefit can often be obtained by thorough curetting and cauterization, with actual cautery, paquelin, chloride of zinc, etc. Carbide of soda is a very good means of keeping away odor and keeping the parts clean. With these and tonic general measures, a great deal can be done for those unfortunate cases.

Doctor McCone: In the specimen passed around you will notice the existence of the carcinoma wholly within the cervical tissue. The vaginal surface of the cervix was unchanged, the face of the cervix not greatly altered. The growth was diagnosticated by palpation, with the sound in the cervix. The cancer was very malignant; the patient perished seven months after operation. The ideal operation for cancer of the uterus will depend on the variety of the cancer and the method of extension of the given variety. It is a clinical fact that squamous, called

carcinomata, extend principally to the vagina, bladder, etc., whilst carcinomata of cervical glands and corpus uteri extend to cellular and lymphatic tissue.

CALIFORNIA ACADEMY OF MEDICINE.

Regular Meeting March 26, 1901.

The president, Dr. D. W. Montgomery, presiding.

MODIFIED PROCEDURE IN HYSTERECTOMY FOR CANCER.

Dr. Henry Kreutzmann read a paper entitled "A Suggestion for a Modified Procedure in Performing Hysterectomy for Cancer of the Uterus." He reviewed the history of the operation, and called attention to the frequent fluctuations between the abdominal and vaginal methods, going back to the time of the first vaginal hysterectomy, which was performed in 1822, by Doctor Sauter, in Constanz, Germany. The author favored the vaginal operation. He had the greatest respect for the experience there was to be gained from the hundreds of cases gathered from the enormous material of the big clinics of this country and abroad, but could not help thinking that deductions were not always unbiasedly derived from an accumulation of operations, but that sometimes operations are performed with the intention of proving a point. Undoubtedly great importance had also to be given to the observations of physicians, who had an opportunity to see a limited number of cases for a long time; even if the material be small, their observations should be entitled to a great deal of consideration. He, personally, was of the latter class of physicians. His number of cases was not unlimited, but he had had an opportunity of seeing his patients for a long period of time. As a result of his experience he had observed that there were cases of vaginal hysterectomy, where the uterus was removed for cancer, where the cancerous growth was proved to exist by competent pathologists, and where the woman remained free from relapse for years. Time and again clinical histories of cases had induced him to consider a neoplasm of recent origin; examination showed apparently a slight affection only; but, after hysterectomy, the inspection of the divided uterus demonstrated a great encroachment of the disease; the cancerous infiltration had invaded the walls of the cervix in such a way that he could with certainty expect a relapse in a short time. Considering the decided possibility of curing permanently certain forms of cancer of the uterus by vaginal hysterectomy on one side, and, on the other side, the impossibility to exactly diagnose the extent of the disease before the organ is cut open, the idea had suggested itself to him to remove the uterus through the vagina, to cut open and to inspect the uterus, and then decide on further procedure. If he found that the vaginal portion only was invaded, or that it was a circumscribed carcinoma of the fundus, and that he could expect with reasonable surety that relapse would not occur, then he could be satisfied with a vaginal operation. If, on the contrary, he found that the disease had progressed farther than was expected, that relapse would surely follow vaginal hysterectomy, then he would open the abdomen and remove all the tissue that it was propsed to remove by the abdominal operation.

Dr. James F. McCone was not quite decided regarding the method of operation in cancer of the womb. In the condition Doctor Kreutzmann spoke of, of cancer involving the fundus, where the surrounding tissue was not affected, the removal is easy by the vagina; but in those cases involving the cervix, where the tissue extends to and involves the rectum and vagina, operation by either method is apt to be disappointing. In these latter cases the radical abdominal operation is certainly the best method, and it should be thorough, care being taken to remove all infected structures surrounding the uterus.

Dr. J. Henry Barbat: If tissue was removed simply to temporarily relieve, the vaginal operation is a good one; but if an attempt is made to eradicate the disease, then the abdominal operation gives better results. One can not always tell by physical examination how far the disease has extended or how much the surrounding structures have been involved. He doubted very much the ability of any operator to remove as much tissue below as could be removed through an abdominal incision. Then, again, the abdominal operation allows of the specimen being removed in one piece, without a great amount of bruising, tearing, and squeezing, all of which are factors in recurrence

Dr. G. Caglieri: During the last two or three years he had followed carefully the arguments of the advocates of the two methods of operation. In the beginning of a case of cervical cancer vaginal operation certainly seems simple. As an illustrative case: A woman 45 years of age had come to me some time ago with a cancer of the cervix. As this had been treated by her family physician for some months with no results, and as some of her symptoms made him suspicious that it was cancer, he decided to remove it; which he did per vaginam. A pathologist, to whom he submitted the specimen, said it was not an epithelioma. One and one-half months after, however, a hard fungoid mass developed in the vagina, which certainly was an epithelioma. He was satisfied that she had had a recurrence, but did not know whether if an abdominal operation had been originally done this recurrence would have been avoided.

Doctor Kreutzmann, in closing, said this certainly was an interesting matter, that this same dispute had been going on for 100 years. At present he was in doubt as to what should be done, for these cases seldom remain well permanently. To get the case early is most important. He had come to the conclusion the certain men, having a favorite method of operation, used that method merely in their endeavor to prove it to be the correct one.

FOREIGN BODY IN THE KNEE JOINT.

J. Henry Barbat: E. P., aged 29 years, came to me to seek relief from pain caused by a foreign body, which appeared at different places at the side of his left knee-joint. He gave a history of having sprained it five years before, and shortly afterwards began to feel that something was wrong. Certain motions would cause a lump to come, either above and external to the patella or just internal to the ligamentum patella. He claimed before the operation that the lump would appear at both places at once, but subsequently remembered that he had never noticed two lumps appearing simultaneously, but that as one would disappear the other would show itself. Physical examination revealed considerable thickening at the site of the upper spot, but no body could be pushed out, while at the inner side of the ligamentum patella the edge of a hard body could be felt, which could be pushed in under the ligament with ease. The operation was done under local anesthesia, and as the patient was so positive about there being two bodies, I opened the joint above first. Careful search with the finger revealed only a decided thickening of the synovial membrane at the spot where the body had appeared, and the thickened portion was removed and the sac closed with fine catgut, the skin with interrupted silkworm gut. The lower spot was then opened, and a hard body could be felt, which projected across from one disc of the ligamentum patella to the other; after considerable difficulty it was dislodged and removed with strong mouse-toothed forceps. The wound was closed as in the previous case, and dressed dry. For forty-eight hours everything went well, no pain, no temperature, and normal pulse; then suddenly he complained of terrific pain in the knee; his pulse went up to 120 and his temperature to 101 degrees Fahr. He appeared very sick. The knee was much swollen and tender, and I removed one of the skin sutures and passed a probe down into the joint, allowing about two ounces of slightly bloody serum to escape, cultures of which proved to be perfectly sterile. He felt relieved after this, but the pain continued off and on for seven days, and the pulse and temperature kept up during this time. Two days following the removal of serum a second opening was made, and more serum allowed to run out, which again proved to be sterile. On the sixth day after the operation he had a violent epistaxis, which was repeated every day for four days, and had considerable tenderness and gurgling in the right inguinal region. Examination of the blood for Widal was negative, as was the examination of the urine for diazo. On the twelfth day his condition became normal, the pain disappeared, and he stated that he felt perfectly well and thought that he could get up and walk, which he did on the fourteenth day after the operation. I report this case to show how much disturbance may be caused by invading a large joint, even when no sepsis is present, and also to show how little reliability can be placed on the histories which our patients give us, because there was undoubtedly only one foreign body, which would jump from one side to the other so rapidly that the patient felt sure that there were two lumps at the same time. The body removed consists of a triangular piece of cartilage, measuring three centimeters on two sides and two centimeters on the other, and looks as though it might have been a portion of one of the semilunar cartilages which was broken off at the time the patient sprained his knee.

INTRALIGAMENTOUS CYSTS CAUSED BY PELVIC PERITONITIS.

Case 1. Mrs D. came to me complaining of pain in the back and ovarian region, which was aggravated during menstruation or on any exertion, so that she was incapacitated from doing even her ordinary housework. Her appearance was indicative of suffering, and her general health was poor. Her troubles began five years before, when she had an attack which was said to be inflammation of the bowels by the attending physician, but, from the symptoms described, was undoubtedly a severe pelvic peritonitis, which confined her in bed for six weeks, and which left her an invalid. The cause of the peritonitis could not be ascertained, but was possibly due to the gonococcus. Examination under chloroform showed the uterus to be fixed in a position of slight retroversion, but normal in size. The right tube and ovary were slightly enlarged, and also fixed; the left adnexa was apparently replaced by a fluctuating mass the size of a hen's egg, which was also fixed. When the abdomen was opened, the omentum was found adherent at its lower border to the contents of the pelvis, and required considerable work to detach it. The entire pelvic contents were matted together, and it was difficult to find a point of cleavage to begin the enucleation. The ovarian artery on the left side was tied and cut, and the broad ligament slit open over the cyst, which was between its layers; this was then shelled out until the tube and the peritoneum closed over the cavity. On the right side the tube was found closed at its fimbriated extremity, and enlarged to twice its normal size; the ovary was normal in size, but adherent. The adhesions were all broken up and the tube slit for a quarter of an inch at its fimbriated end, and the mucosa sutured to the peritoneum. The uterus was separated from the anterior wall of the rectum, to which it was adherent, and the pelvis thoroughly dried. Eight ounces of sterile olive oil were then poured in and the belly closed. The temperature and pulse were kept a little above normal for over two weeks, and the patient was not able to leave the hospital until four weeks after the operation. At present, seven weeks after operation, she is feeling perfectly well, has no pain, and the pelvis feels clear and is not tender on examination. I will, however, give her about two months' massage and electricity to tone up the parts and prevent further adhesions.

Case 2. Mrs. W. called on account of an unusual irregularity of menstruation, having flowed very slightly previously at her regular period, and at the next epoch, which came on a week ahead, flowed for two weeks steadily. She had had several sharp attacks of pain after the first epoch mentioned, and on one occasion while down town the pain was very violent, and the patient felt faint and had to be taken home in a carriage. She stated that three years before she had some trouble, which was called inflammation of the bowels, and remained in bed for several weeks, and had not felt well ever since. Examination disclosed a mass about three inches in diameter to the left of the uterus, which was tender on pressure, and the left uterine artery was pulsating more forcibly than normal. The right ovary and tube could not be separated, and felt slightly enlarged. A diagnosis of possible ectopic pregnancy was made, and operation advised, because if this condition did not exist, we had either an intraligamentous cyst or a distended tube, or both, and operation was still indicated. When the belly was opened, the great omentum was found adherent from the attachment of the broad ligament to the pelvis on one side to a corresponding point on the other, and it was impossible to reach any of the pelvic organs until the whole lower portion was tied off and removed. The pelvic contents were adherent to everything adjacent, and showed a mass in the left broad ligament as large as an orange, and one on the right side about one-third the size. The left ovarian artery was tied and cut, the peritoneum slit open, and the mass enucleated. It proved to be an intraligamentous cyst, which had become so adherent to the tube that it was impossible to separate them. The contents of the cyst was bloody serum. The right ovarian artery was tied, and the tumor separated from the adjacent structures; it was found to be a broken-down ovary, the contents having the appearance of old pus, and the tube so closely adherent that it had to be removed. The appendix was removed en passant, and was much congested. A small part of the ovary was left to prevent sudden menopause. The uterus was separated from the rectum, the pelvis dried, and oil poured in, after which the belly was closed. The temperature remained a little above normal for ten days, but the patient had no discomfort and made a perfect recovery. The symptoms in this case were almost pathognomonic of ectopic pregnancy, and were probably caused by the same conditions which exist in that disease. Slight hemorrhages into the cyst cavity would cause its rapid distention, with accompanying pain, which might be severe enough to cause partial collapse. The irregular menstruation is easily accounted for by the disturbed circulation in the ovaries and tubes.

Case 3. Miss H. Had been treating for two weeks previous to my seeing her for "inflammation of the womb," without any relief. I found her with a temperature of 104 degrees Fahr., pulse 125, tongue furred, nausea and constipation, and a tender, fluctuating, sausage-shaped mass in Douglas cul-de-sac. She had some purulent discharge, which she had noticed for a month before. A diagnosis of pus tube was made, and the pus liberated through a vaginal incision. A drainage tube was passed into the right Fallopian tube for three inches, and remained there for one week, when the discharge had practically ceased, and it was removed. The temperature dropped to normal as soon as the pus was liberated, and the patient was able to come to my office two weeks from the day of operation. There was still a mass on the right side of the uterus, which was rather tender, but otherwise the patient felt perfectly well. One day, four weeks from the date of the first operation, while waiting in my office, she was taken suddenly very sick, with a severe pain over McBurney's point, felt nauseated, and the appendix was found exquisitely tender. Immediate operation was advised. The abdomen was opened near the right linea semilunaris, and the appendix sought for. It was found passing directly down into the pelvis and the tip adherent to a mass in the right broad ligament. The adhesion was separated and the appendix removed. The mass proved to be an intraligamentous cyst, and was removed with the tube on that side, as in the previous cases. The adhesions in this case were not as dense as in the other cases, showing the trouble to be of recent origin. The hole which had been cut in the tube at the first operation was easily discerned. The left adnexa were in fair condition, and were not disturbed. The uterus was not adherent, and was in normal position. This patient had considerable pain for four days after operation, but her pulse and temperature remained normal during the entire convalescence. These cases illustrate the fact that pelvic peritonitis, from whatever cause, if followed by adhesions, is a causative factor in the production of ovarian cysts. The adhesions which surround the ovary prevent the proper rupture of the Graafian follicle, the secretion is retained, the ovum can not enter the Fallopian tube, and an ovarian cyst is born, which may subsequently rupture and be absorbed, or which may keep on growing until it causes grave disorder, and requires removal. If the adhesions are very dense, they prevent the tumor from growing upward, and we have the growth filling the pelvis before it begins to appear above the brim. They are usually accompanied by considerable pain, which is increased during the menstrual epoch, and the patient is aware that something is wrong with her internal organs.

Doctor Caglieri asked if the introduction of olive oil into the abdomen was of more use in the prevention of adhesions than that of normal salt solution.

Doctor Barbat replied that he had used it on several occasions, and had sometimes seen good results.

Doctor Kreutzmann said that he did not agree with Doctor Barbat when he called these specimens cysts of the ovaries. The ovaries presented were inflammatory; he had seen any number of them, always growing fast to the broad ligament. Cysts are nothing but enlargements of the Graafian follicles. He thought it proper to be as conservative as possible in operating on these cases, and that a piece of the ovary should be left in whenever possible. The more work he did, the more necessary he thought it was that these women should keep on menstruating. If all ovarian tissue is taken out, and the woman ceases to menstruate, she usually suffers more than before. He thought that all we can do to prevent adhesions is to see that the bowels move soon after operation, and to sew up all tears in the peritoneum.

Doctor Barbat, in reply, said that in these cases he invariably gives a rectal infusion of coffee and Epsom salts before the patient leaves the table. The adhesions that are particularly hard to prevent are those where an ovary and tube, being bound down, are separated, leaving very raw surfaces. He draws these ovaries outside the abdomen, wipes them dry, removing as much as possible all little stringy adhesions; then, with the introduction of sterile oil, he has found that adhesions are less likely to reform.

LATERAL DISLOCATION OF ELBOW.

Dr. J. W. Shiels reported a case and exhibited a patient who had recently fallen, sustaining a lateral dislocation of the right elbow. A skiagraph was taken before reduction, which was also presented. The dislocation was reduced, the arm put in plaster for 48 hours, when it was removed, and passive motion carefully commenced.

THE SAN FRANCISCO MEDICO-CHIRURGICAL SOCIETY.

Regular Meeting, March 4, 1901.

Dr. T. G. Inman in the chair.

THE STEREOPTICON IN THE TEACHING OF GNYECOLOGY.

Doctor Somers: The doctor brought his stereopticon into the room, and threw a series of brilliantly-lighted pictures upon the screen, in illustration of the minute anatomy, histopathology, differential diagnosis, and methods of treatment of retroversion of the uterus, selecting the subject as a type of the lectures, and as a type of the methods of illustrating them.

After showing about twenty or thirty pictures in this way, the doctor concluded his demonstration by dwelling somewhat upon the illustrations of the methods as applied to class work both for teacher and for student; but in this application of it by means of the lantern, there are a number of difficulties to be overcome.

These difficulties are as follows:—

1. We can not depend entirely upon the lantern, the heat upon the slide being so great as to sometimes melt the material holding the picture to the glass slide, thus giving a blurred picture, or else completely spoiling it.
2. The light in the room. The room must be darkened somewhat, but it does not need to be very dark. There can be general light enough in the room for the students to see, in order to write their notes, yet the light must be diminished sufficiently to see the illuminated pictures.
3. Under these conditions the picture is necessarily not very brilliant.
4. Students are not accustomed to this method of teaching, and they forget. The pictures are shown for a few minutes only, and the succession of one image after another acts in a manner one to efface the other, so that the memory of such a lecture is not particularly clear, at least, not as clear as one would desire.
5. It is difficult to use the lantern for so long a time as an hour.
6. The machine is troublesome.
7. It is expensive.

These are the principal difficulties which interfere with its use, although they do not at all effectually stop the use of the lantern, which, within its own field, is a very valuable instrument in teaching classes.

Dr. L. C. Lane: As I watch these pictures flash upon the wall, one after the other, it recalls very vividly to my mind another scene in a large lecture room, just fifty years ago to-day. When I was a student, I remember walking into Jefferson Medical College one day, and listening to a lecture on gynecology, by Chas. D. Meiggs. There were about 620 students in that class,—quite a contrast to the small sectional classes of to-day.

After we had assembled there, there soon entered a most remarkable-looking man, a most wondrous teacher. He was dressed faultlessly, stood straight as an arrow, he wore considerable jewelry on his person, and, all in all, had a most striking figure.

He said: "Gentlemen, I have in my hand a little organ, and it is the subject of my lecture to-day. Gentlemen, such is the importance of what I am about to tell you, that if I were to assume the most grotesque attitude possible, if I were to come before you here and stand upon my head, I could not impress upon you too firmly the great importance of the little organ which I hold in my hand. It is two and one-half inches long, one and three-quarters inches wide, and three-quarters of an inch thick. It is a human uterus.

"Two and one-half inches long, one and three-quarters inches wide, three-quarters of an inch thick; and again I repeat to you, it is two and one-half inches long, one and three-quarters inches wide, and three-quarters of an inch thick. These numbers are of wondrous value to you.

"This little organ which I hold in my hand is two and one-half inches long, one and three-quarters inches wide, three-quarters of an inch thick."

Such was the wondrous magnetism of the man, and his power to compel attention, that that lecture of his remains as firmly stamped upon my mind to-night as if it were only yesterday that I heard him repeat those words.

His methods of teaching were unsurpassed. There has been probably no man in the world with a greater ability to impart what he knew than that same Chas. D. Meiggs.

MEASLES, ITS COMPLICATIONS AND SEQUELAE.

The discussion on this subject was opened by Doctor Peck, who read a paper entitled "Measles, Its Complications and Sequelae" (to be published).

"Complications Involving the Eye and Ear." Dr. A. Barkan read a paper upon this subject (to be published).

"Complications Involving the Gastro-Intestinal Tract." Doctor Hirschfelder gave a short address upon this subject (to be published).

Dr. Henry Gibbons, Jr.: I am surprised by Doctor Barkan's statement of the serious ear troubles that follow measles. Personally I have had, in all my experience, but two cases of ear involvement in this affection. I do not recall any serious trouble. I do not recollect any permanent impairment of hearing. I do not recall a death from measles, except in war times, and after exposure from pneumonia.

I have always regarded measles as an extremely trivial affection, as an affection which it is a benefit, rather than otherwise, to have had, because of the protection which it affords. I think it is good to have this disease, and to have it, of course, in childhood.

A striking illustration of the benefit of this came to my notice while I was a health officer, some twenty years ago. A little before that time, there had been in the island of Tahiti, for a period of about seventy years, no measles.

After that time, the disease was introduced in the islands by some persons from a French vessel which visited the place. The disease spread rapidly among the population; old and young were attacked, and it proved to be a terrible epidemic. Hundreds of the population died.

Now, in San Francisco we have had practically no mortality from this disease in fifty years; but, on the other hand, I believe that if there were no measles contracted in childhood here, and that a new generation not immuned to measles should spring up, and that then the disease should be introduced among them, the result would be far more fatal than any smallpox epidemic ever had been.

There is no doubt that many hundreds would die from the disease; therefore, I say, I think it is good to have measles in childhood.

SAN FRANCISCO SOCIETY OF EYE, EAR, NOSE, AND THROAT SURGEONS.

Regular Meeting, March 21, 1901.

Dr. F. B. Eaton, president, in the chair.

XEROSIS OF THE CONJUNCTIVA.

Dr. W. A. Martin presented an old lady of sixty or seventy years of age, with apparent xerosis of the conjunctiva. He first saw her six weeks ago. She had been told by a physician that she had syphilis, and he had been treating her on that basis. She said she had eczema.

He found there was a lash that was rubbing in the eye, and thought perhaps he had discovered the cause of the trouble; but after it was removed the trouble kept on just the same. There seems to be a gradual obliteration of the conjunctival sac. There are patches on the conjunctiva, and these seem to constitute a sort of xerotic condition. When the eye is washed with an ordinary wash, there are flakes which seem to come away like oil flakes in water. Doctor Martin could not say that the condition is syphilitic. He had never seen a similar condition, and thought he would bring the patient to see if any of the members had seen anything like it. They would notice that the conjunctival sac in the left eye is very narrow, but it is not obliterated to a mere margin, as in the right eye.

The president asked Doctor Martin whether there is any condition of malnutrition.

Doctor Martin: Only that she said she had eczema, if that is a condition of malnutrition. It is so claimed by some.

The president asked whether there is any hemeralopia.

Doctor Martin: That is entirely a juvenile condition, and is not present in any case where the patient is of this age.

Dr. R. D. Cohn thought the case very interesting. He considered, however, the red patches to be of secondary importance. The chief thing of importance is the gradual obliteration of the conjunctival sac. This he had never seen, and in a case of this sort it was impossible for him to venture even a guess. He should imagine that it is not syphilitic, and would not use anti-specific treatment.

Doctor Merritt said he would like to mention a few points about the case, having seen it about six months before. Eight months ago it was progressing slowly. There was a little more edema about it, but the conjunctival sac was not as small as it is now, and he did not consider it syphilis, and did not give her any specific treatment. She told him that a physician was treating her for syphilis. In this case the foundation of the palpebral conjunctiva rests upon a deep bed of homoplastic tissue. It presented, to Doctor Merritt's mind, the same conditions we find in mouth in lupus, while there are many patches on the mucous membrane of the mouth.

SYNCHYSIS SCINTILLANS.

Doctor Frederick presented a case of synchysis scintillans of senile origin, and stated that it is only remarkable for the fact that it is found present in the outer and lower half of left eye, and not in both eyes, as is the rule. He found these light golden spots confined in the outer and lower half of the left eye. This is strictly a senile change, as the man is about seventy years of age. The only remarkable thing about this case is the location of the synchysis.

MIDDLE EAR DISEASES—COMPLICATIONS AND OPERATIONS.

Doctor McKee then read an essay on suppurative middle ear diseases, their complications and operations.

Doctor Martin, in opening the discussion, said that the field covered by Doctor McKee is so large that it was a difficult matter to decide just what points to pick out for discussion. The first case that Doctor McKee spoke of, which was a case of sinus thrombosis, reminded him of a similar case he had some time ago. Doctor McKee speaks of seeing it in a much better light now than at the time of making the operation. This case Doctor Martin would speak of was not, in his mind, a case of sinus thrombosis pyemia. He was called in this case, and found patient with very high temperature, about 104 degrees to 105 degrees, great protuberance over the mastoid. He concluded to operate at once, which he did by gaslight, with one assistant. He thought by freeing the pus he would relieve the trouble. Temperature was lower next morning. Did not go into the middle ear to clean it out thoroughly. Could not detect much granular tissue there. Two or three days later temperature rose to 105 degrees to 106 degrees. He opened up the wound again, and called in a consultant, who tried the pulse and advised giving a cathartic, and temperature promptly fell next morning, and Doctor Martin was congratulating himself that it was a case of stomach trouble. However, the temperature did not stay down; it went up again. He finally concluded, on the third day, to go in and curette it out thoroughly, which he did, and the temperature never went up again. There was a small granular mass in the middle ear, which accounted for this trouble. The other cases mentioned we see continually. Doctor Martin had never had but one case of sinus thrombosis, and that he did not operate on. This case was of an engineer, where the pus had burst out above the ear; it had burrowed out above the cartilage, and he opened it above the ear at this point. He kept urging him all the time to have the operation performed, but he never got around to it, saying that he could not find a substitute. One day Doctor Martin was telephoned for. He took two assistants with him, and went to the house: he found the man had had to come from work. He was told that the only chance was to have the operation performed. He called his wife in and stated the conditions to her, and wanted him to have the operation. She said she would wait a few days. He was taken to the Eclectic Hospital three days later, and operated on, and left the table.

Dr. A. Barkan said that several points in Doctor McKee's paper had impressed him. He was inclined to think most of the blame in serious cases, where there was hesitation and faulty interpretation, lies on the shoulders of the consultant being a surgeon, or, still worse, being the family physician. There is always something wrong with the bowels, or some excuse found here or there, whereas, if we were to approach the case alone, we would say this is clearly a case of serious importance, and affecting the brain. He was strongly reminded of a number of cases, but would mention only one. One Saturday afternoon a German brought his wife and little girl. The child was about twelve years of age, and while she was even crossing the entrance to the office, Doctor Barkan was struck immediately by the pale, fevered appearance of the child. On removing the handkerchief from the child's head, he found a mountain of pus running out from her ear such as he had never seen. Feeling her pulse, he inquired how long she had been affected, and told them they had a very serious case, and tried to get her to the hospital, but they had a comfortable home and would not have her taken there. He told the mother and father that he was quite anxious about the case. The next morning he went over to the house feeling quite anxious, and had made up his mind, unless the child was better that morning, he would open the mastoid anyway and look in. To his astonishment he found the child greatly improved. Simply cleaning the ear had done a great deal of good. The child was cheerful. He did not see his way clear that day to perform the operation, and on Monday called again, and found the child much worse. Temperature had gone up. He waited a couple of hours for the physician they wished him to meet in consultation, and when he came, at once a history of bowel complaint was sprung, and the whole manner of the man impressed him that he was afraid of losing the case. Even though he did not want to interfere with his case, he felt it his duty, however, to tell the parents that the case was very serious, and that he wished to have an immediate consultation with a fellow specialist. That was the last he saw of the child. He was never called again. In about six weeks the father called at the office and asked the amount of the bill. The face of the man showed that he had lost his child, and that he knew that he had made a very great mistake in leaving the case to the family physician. We must not allow ourselves to be guided too much by consultants. If we think we are right, we should go ahead. The second remark was with regard to cutting off polypi. The case that Doctor McKee referred to he had seen, and it has been a warning to him to be very sure they are not those that spring up from the upper and posterior wall of the canal and from the roof of the tympanum, the most dangerous spot. These are the ones that MacEwen refers to in his warning, and on those mistakes are very easily made, and we will do well to leave these alone, unless we are sure what they are. He thought there was another point of interest, the meeting of the dura or sinus on the way to antrium. Was it the dura or the sinus?

Doctor McKee: The dura. It is higher up.

Doctor Barkan said he had had several cases of that kind, and in every case had simply gone ahead, cautiously removed the posterior wall, and, working carefully, had reached the antrium.

Doctor McKee, closing the discussion, said one point in regard to a case he mentioned was that the man did not feel inconvenienced in any way with his work. In the operation he was not sure the mass uncovered was the dura. The assistant, who was a family practitioner, kept leaning over his shoulder and asking him if he did not think he was getting in pretty deep, etc. He could not make out any indication of the sinus at all. He made up his mind it was the dura. He has uncovered the sinus several times, and has always recognized it.

The president wished to call attention to the case presented by him at the last meeting, viz., the young man with a precipitate or deposit between the corneal epithelium and Bowman's membrane, formed by the joining of methylene blue and protargol. The experiments he had made by mixing these substances on a piece of porcelain, had yielded a similar buff-colored deposit, which he had found soluble in a solution of potassium cyanid.

MEDICAL NEWS.

LICENSES GRANTED.

5889 Dickinson, Daniel K., Los Angeles, March 2, 1877, Missouri Medical College, Mo.

5890 Dorn, Dora Ida, San Francisco, May 15, 1900, Medical Department University of California.

5891 Failing, John Fletcher, Sierra Madre, Feb. 25, 1868, Medical Department University of Buffalo, N. Y.

5892 Goetsch, Alice Josephine, Sacramento, June 14, 1894, Medical Department Northwestern University, Woman's Medical School, Ill.

5893 Gorsuch, Lorenzo Tipton, Richmond, April 10, 1900, College Physicians and Surgeons, Keokuk, Iowa.

5894 Griffith, David S., Richmond, March 10, 1863, Jefferson Medical College, Pa.

5895 Heath, Walter L., Richmond, Vt., July 11, 1892, Medical Department University of Vermont.

5896 Hely, Levi St. John, Borden, June 22, 1899, Medical Department University of Michigan.

5897 Hill, John S., San Francisco, May 15, 1896, Jefferson Medical College, Pa.

5898 Keep, Frederica Augusta, San Francisco, June 14, 1900, College Medical University Southern California.

5899 Kirk, James Milton, San Francisco, June 21, 1900, Rush Medical College, Ill.

5900 Laubersheimer, George A., Los Angeles, June 14, 1900, College Medical University Southern California.

5901 Larsen, Julia P., San Francisco, May 15, 1900, Medical Department University of California.

5902 Lawrence, A. J., Hanford, Feb. 23, 1875, Medical Department University of Buffalo, N. Y. (Lieu Cert).

5903 McCandless, Jacob N., Prescott, Ariz., March 10, 1863, Jefferson Medical College, Pa.

5904 Perkins, Everett C., Auburn, June 24, 1897, Medical Department Bowdoin College, Me.

5905 Priestly, Spurgeon Floyd, Stockton, April 13, 1898, Barnes Medical College, Mo.

5906 Ransom, Stacy A., Angel Island, May 9, 1893, Medical Department Georgetown, Washington, D. C.

5907 Reames, Frank D., Klamath Falls, Ore., April 2, 1900, Medical Department University of Oregon.

5908 Ross, William, New York, May 1, 1894, Medical Department University City of New York.

5909 Siggins, John J., Philadelphia, Pa., March 2, 1885, Detroit College of Medicine, Mich.

5910 Smith, John William, San Francisco, June 5, 1900, Cooper Medical College, Cal.

5911 Taylor, John J., Riverside, Jan. 25, 1867, Rush Medical College, Ill.

5912 Trachman, Henry J., Newark, New Jersey, April 11, 1900, Baltimore University School of Medicine, Md.

5913 Vassault, Theodora Elliott, San Francisco, May 15, 1900, Medical Department University of California.

5914 Vermyle, Oscar Eugene, New York, April 21, 1895, Baltimore University School of Medicine, Md.

5915 Ward, Irving Lyndon, Yreka, April 5, 1897, Medical Department University of Oregon.

5916 Whitelock Thomas Sidney, San Diego, April 3, 1900, Gross Medical College, Colo.